

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

THE AMERICAN

ELEVATOR AND

GRAIN TRADE



Established 1882 Entered as second-class matter June 26, 1885, at the Post Office at Chicago, Illinois, under Act of March 3rd, 1879. Established 1882

PUBLISHED BY
Mitchell Brothers Publishing Co.

A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

One Dollar Per Annum
SINGLE COPIES, 15 CENTS

VOL. XXXVIII

431 South Dearborn Street, Chicago, Ill., November 15, 1919

NO. 5

Our Ways and Our Means
Encourage Patronage

McKenna & Rodgers

Grain Merchants
Consignments

60 BOARD OF TRADE
CHICAGO

We Meet Your Needs in Deeds

TAYLOR & BOURNIQUE CO.

Grain Merchants
MILWAUKEE, WISCONSIN

WESTERN BRANCHES:

Chicago, Ill.
Sioux City, Ia.
Mason City, Ia.
Des Moines, Ia.
Fort Dodge, Ia.
Sioux Falls, S. Dak.

Department H

Elevator Capacity
Milwaukee and Chicago,
2,000,000
Bushels

EASTERN BRANCHES:

New York City, N. Y.
Boston, Mass.
Philadelphia, Pa.
Buffalo, N. Y.
Pittsburgh, Pa.

TRACK BIDS—SALES TO ARRIVE

Consign to us at Milwaukee, Chicago, Minneapolis, Sioux City, Ia.; Des Moines, Ia.; or Schneider, Ind.

QUALITY AND UNIFORMITY

Buyers

OF

Clover

AND

**Timothy
Seed**

Mail Samples for Top Market Bids

**Milwaukee
Seed Company**

MILWAUKEE, WIS.

Established 1877 LANGENBERG BROS. GRAIN CO. GRAIN and HAY

We Solicit Your Consignments

St. Louis

Kansas City

New Orleans

Oklahoma City

THE ILLINOIS SEED CO. GRASS SEEDS FIELD

BUYERS

CHICAGO

SELLERS

Ask for Samples

Mail Samples for Bids

TIMOTHY, CLOVERS, ALSIKE, ALFALFA, MILLETS, RED-
TOP, BLUEGRASS, SEED GRAIN, GRAIN BAGS, Etc.

GRAIN, PROVISIONS

STOCKS AND BONDS

**SIMONS. DAY
& Co.**

Phone Harrison 344 322-330 Postal Telegraph Building CHICAGO
(All Departments)

We solicit consignments and furnish bids on Cash Grain and Provisions for all markets

The WAGNER

Covers all markets. Ask for the weekly or
daily issue. Has the largest circulation of any
grain literature.

Stocks E. W. Wagner & Co. Bonds
Grain Members New York Stock Exchange
Members New York Cotton Exchange
Members Chicago Board of Trade
Continental & Commercial Bank Bldg.

LETTER

Established 32 Years

CHICAGO

Courteen Seed Co.

MILWAUKEE, WISCONSIN

**CLOVER and TIMOTHY
SEEDS**

SPECIAL PRICES ON GRAIN BAGS

Write Us When Interested

BACHE SERVICE

USE IT
ON

GRAIN AND SEEDS

Chicago, Ill.



*"By George, Man! - I don't
remember your name-but*

I can't forget your face!

Three or four years ago you sold me a
Diamond Belt and it was the

BEST BELT I EVER BOUGHT!"

This terse little incident which agreeably surprised one of our salesmen a few months ago, expresses very thoroughly the Quality Appeal of Rubber Products made by the Diamond Rubber Company.

"GRAINVEY" and "ELEVAY," our well-known Conveyor and Elevator Belts are carrying and elevating grain without fear of breakdown in Elevators large and small, throughout the country—they will do the same for you. If your Belts bear the name Diamond they will bear the acid test of friendly reunion between salesman and buyer in days to come.

To produce the best and sell with greatest possible Service to the buyer is the aim of this Company and the reason for its continually increasing turnover.

THE DIAMOND RUBBER COMPANY,

Incorporated

Branches in All Cities

Factories in AKRON, OHIO

Diamond
MECHANICAL
RUBBER GOODS
BELTING HOSE
PACKING

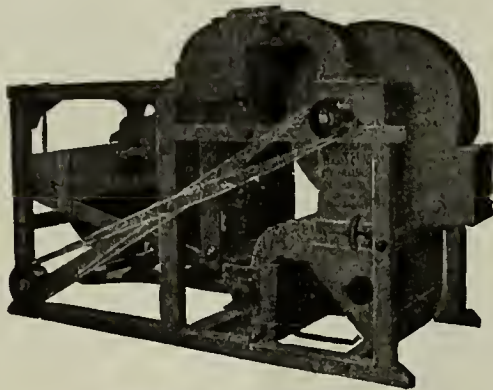




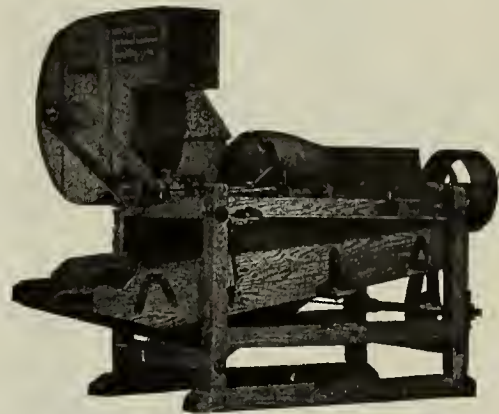
"Western" Rolling Corn Screen Cleaner



"Western" Pitless Warehouse Sheller



"Western" Gyrating Cleaner



"Western" Warehouse Combined Sheller

The Best of Everything in
Grain Elevator Machinery
is found in the
"WESTERN LINE"

Write for Descriptive Catalog

UNION IRON WORKS
DECATUR, ILLINOIS

Complete Line of Shellers and Cleaners Kept at

1400-1402 West 12th Street KANSAS CITY, MO.



A FLOUR of incomparable flavor, milled by an improved direct process, which retains in the flour that sweet, nut-like flavor of the crushed wheat. By this process the natural oils, in which reside the real flavor and health building vitamins of the wheat, are in no way destroyed by excessive grinding, bolting and passage through musty elevators and conveyors.

In other days, the flour made by the old Buhr mill was famous for its flavor, but it was dark and had to give way to modern roller machinery, which increased the whiteness of the flour and the yield per bushel of wheat, but took away most of that greatly desired flavor. This improved roller process combines the efficiency of later day machinery with the flavor of the flour made on the old Buhr Mill.

This new process mill is known as THE AMERICAN [MIDGET] MARVEL. There are 1800 of them in operation at the present time in the United States.

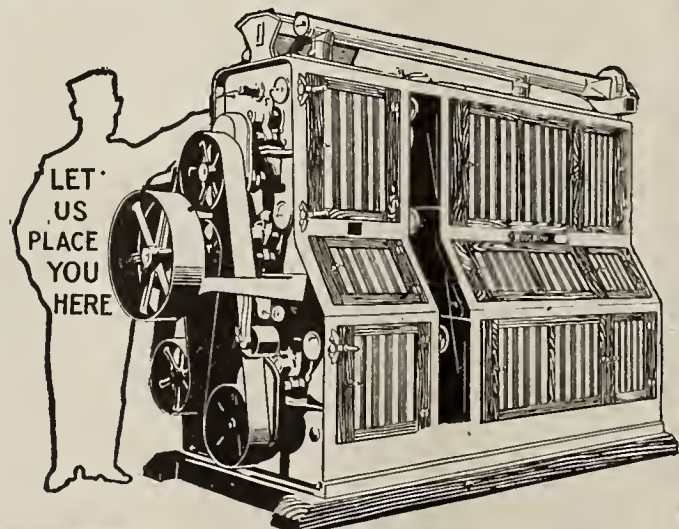
"Flavo" Flour

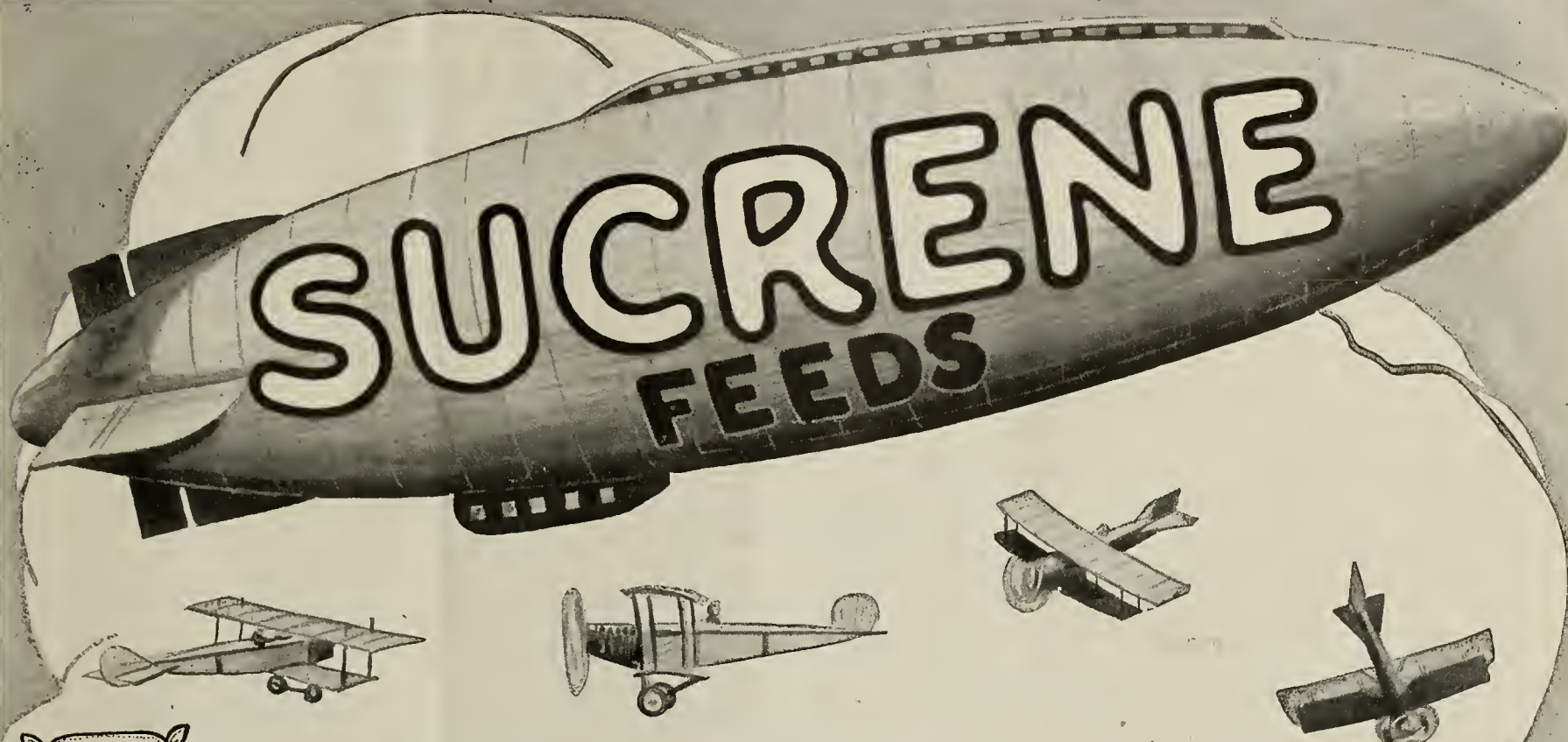
"Famous for its Flavor"

Everywhere people are demanding "Flavo" Flour on account of its flavor and texture. If you have never tried flour made on the "Midget" Marvel, get a sack at once—you will never use any other. If there isn't one of these mills in your Community, write us for the address of the nearest one.

We will also be glad to send you a copy of "The Story of a Wonderful Flour Mill." You will find it interesting.

THE ANGLO-AMERICAN MILL CO.
586-592 Trust Building Owensboro, Ky.





Above All Others

Hold your leadership in the feed business with the recognized Standard Sucrene Line. The long standing reputation of these feeds for result-producing quality is firmly established. Feeders of live stock and poultry will not be satisfied with "substitutes."

Cooperation Gets the Business Sucrene Quality Holds It

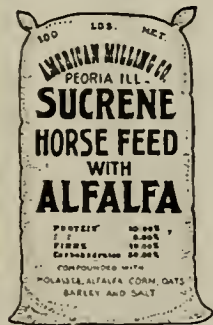
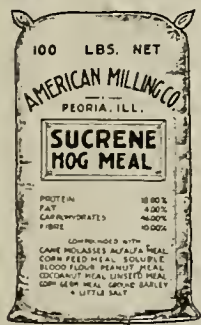
With the completion of our new mill in the near future—the greatest and most modern exclusive feed mill in America—we will be able to take better care of the trade than ever before, with quality feeds at money-making prices.

Orders for the complete line of Sucrene Poultry Scratch Feeds are solicited and will be promptly filled. Address main office.

American Milling Company

Main Office and Mills:
Southern Mill:

Peoria, Illinois
Owensboro, Ky.



CINCINNATI

THE NATION'S HAY CENTER



CINCINNATI is the ideal center for the hay trade. Railroad facilities could not be better. Trunk lines run from all the adjacent hay growing states to this city, thence lead to the consuming section of the South and East, assuring quick returns and conditions favorable to top prices at all times.

Under the "square deal" plugging system the grade of hay can be established to an absolute certainty. There is no chance of change in the price originally quoted and all dissatisfaction, complaints and subsequent inspections are eliminated. Shippers are protected and get what the hay is honestly worth and all that it is worth.

Look at the map and market your hay through any of the following responsible members of the

Cincinnati Grain & Hay Exchange

Brouse-Skidmore Grain Co., The
Early & Daniel Co., The
Fitzgerald Bros. Co., The
De Mollet Grain Co.
Eikenberry-Fitzgerald Co., The

Blumenthal, Max
Cowling, Alfred
Costello Grain & Hay Co., The Joseph F.
Gale Grain Co., The A. C.
Dorsel Grain Co., The
Cleveland Grain Co., The

Granger, Dan B., & Co.
Bunting & Hill Co., The
Cross Co., The D. O.
Gray & Co., Ralph
Bender, A.
Brown & Co., W. L.

GRIFFIN SERVICE

IMPROVED AND ENLARGED

NOW

Energy

Ambition

Financial Strength

BACHE SERVICE

Efficient Sales and Office Force

USE IT

CORN, OATS, WHEAT, BARLEY, RYE & SEEDS

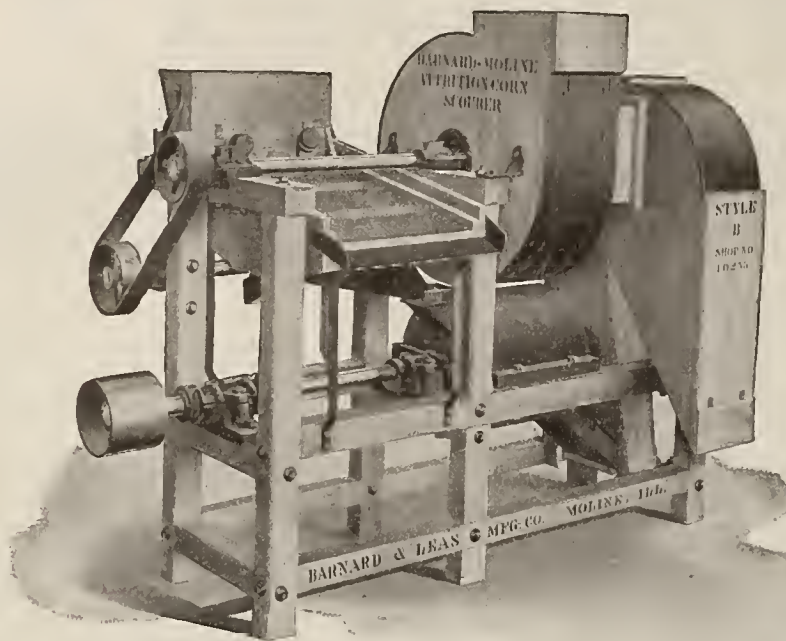
*CONSIGNMENTS
SALES TO ARRIVE*

R. G. FREYMARK }
E. A. PRAEGER } with

J. S. Bache & Co.

Grain Commission
108 S. LA SALLE ST.

Chicago, Ill.



Barnard Moline Attrition Corn Scourer

Scouring Corn Without Waste

Attrition Mills
Belting
Belt Conveyors
Belt Punches
Belt Cement
Car Pullers
Car Movers
Cob Crushers
Corn Shellers
Corn Hullers
Dump Scales
Dust Collectors
Elevator Heads
Elevator Boots
Elevator Buckets
Feed Mills
Fire Buckets
Feed Screens
Grain Dryers
Grinding Mills
Link Belting
Loading Spouts
Man Lifts
Power Shovels
Iron Pulleys
Platform Scales
Scalping Sieves
Steel Conveyors
Shafting
Turn Heads, etc.

is making a mild assertion, compared to the actual efficient results being obtained from this wonderful machine, by a large number of millers. It actually scours and cleans the corn without fracturing and damaging, and thus wasting the tender, starchy and most valuable end of the kernels of corn, which are damaged and wasted when scoured with machines of the revolving beater type.

The degree of scouring is fully controllable by means of an adjustable, automatic, valved outlet. The interior revolving, agitating mechanism gives each kernel of grain a rapid rolling or revolving motion. The friction of the corn against itself, and against the walls of the case, removes all adhering foreign substance, as well as black caps and the hard, woody tips.

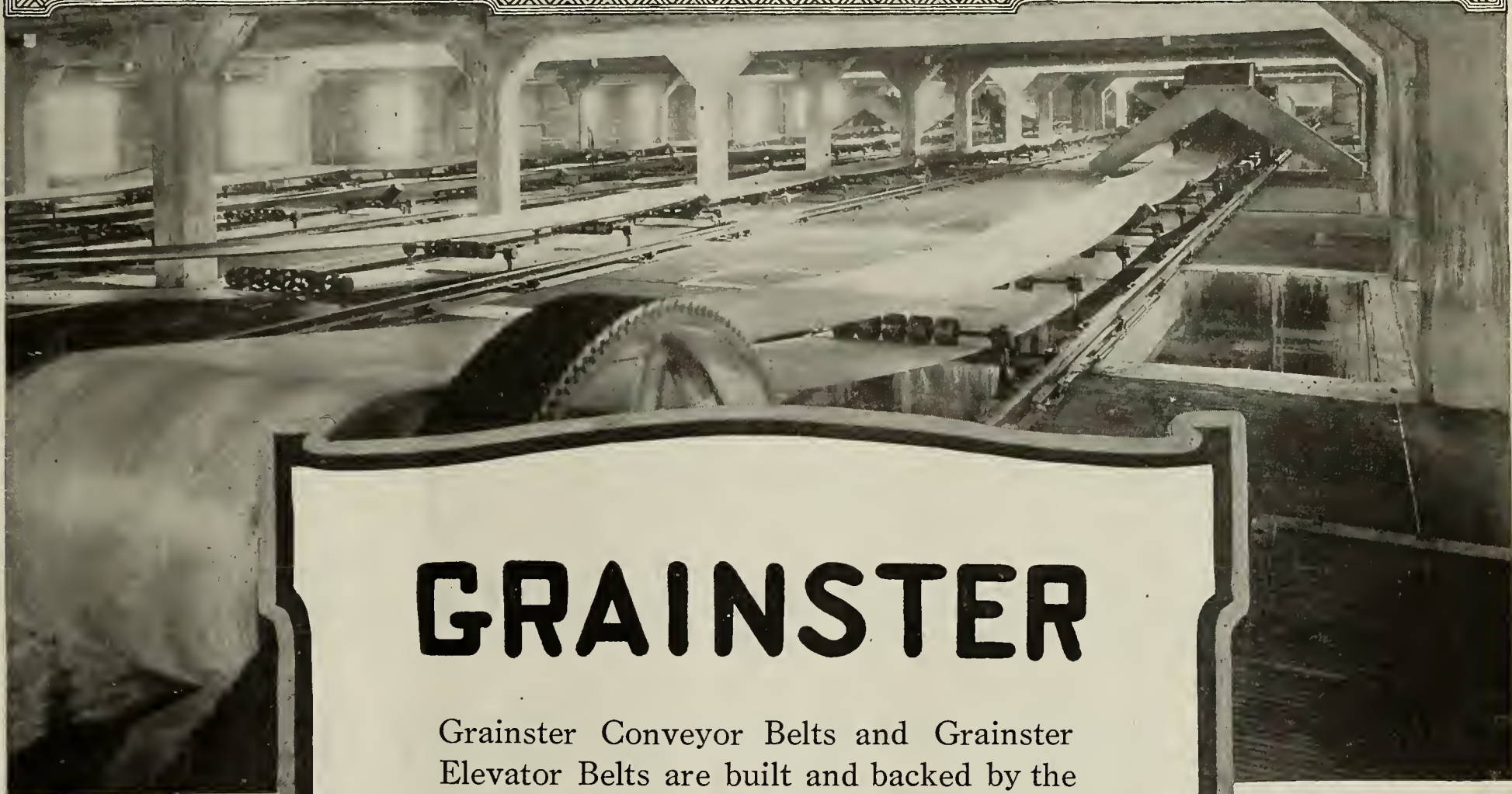
Write Today for Bulletin 15-C and Learn the Facts

BARNARD & LEAS MFG. CO.
MILL BUILDERS AND
MILL FURNISHERS
ESTABLISHED 1860. MOLINE, ILLINOIS, U.S.A.





Conveyor Belts



GRAINSTER

Grainster Conveyor Belts and Grainster Elevator Belts are built and backed by the world's largest rubber manufacturer.

The factories now making Grainster Belts produced the first belts ever used in handling grain.

These five factories have since kept pace with every increasing demand of the modern grain elevator.

Grainster is the result of the 40 years experience of these factories in building belts for grain service.

United States Rubber Company



The dynamic character of the Indianapolis market reaches to all receiving centers, making it the logical shipping point from central territory.

It attracts grain from the vast central arable plains and has proper connections with excellent billing facilities to all points, East, West, North, South.

The location and natural advantages of Indianapolis as a grain receiving and shipping center, therefore, makes it the best market in the country.

The following firms are devoted to your interests, all members of the

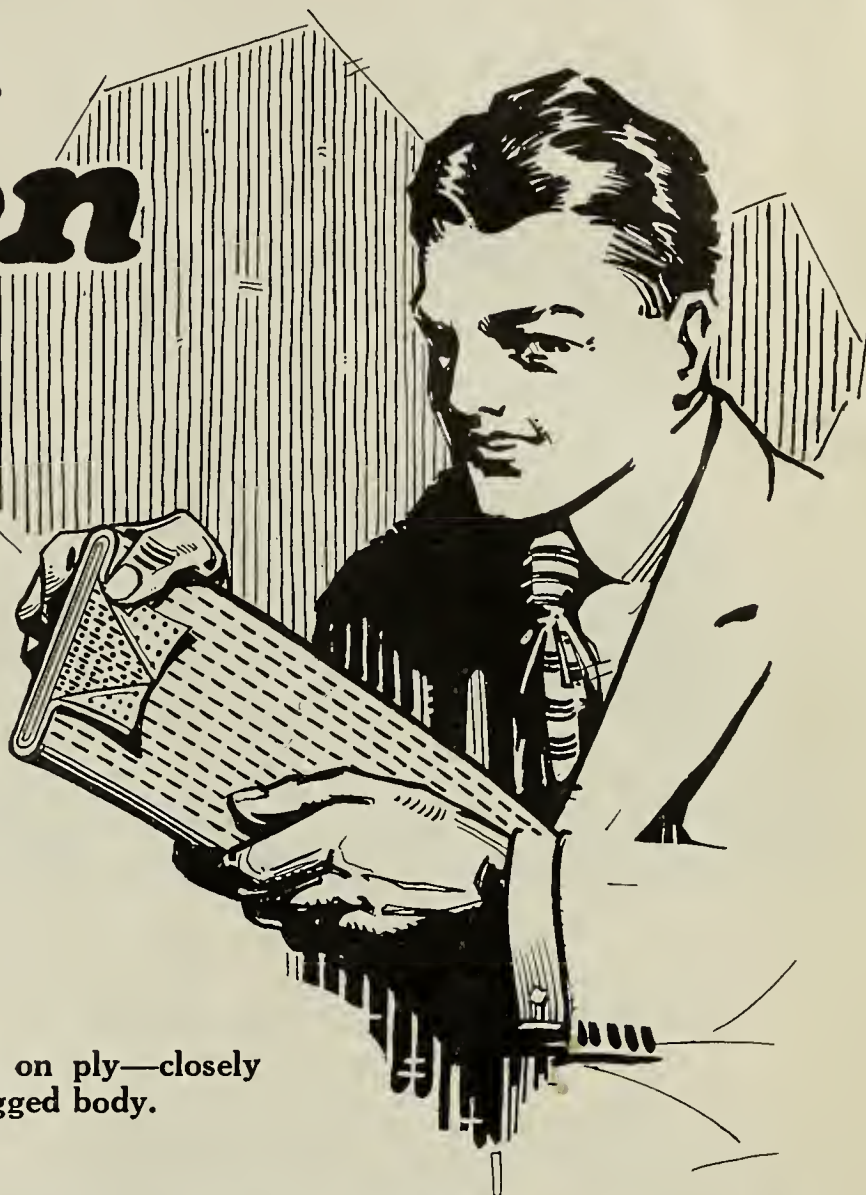
INDIANAPOLIS BOARD OF TRADE

BIG FOUR ELEVATOR CO., Merchandisers of Grain
BINGHAM-HEWETT-SCHOLL CO., Grain Merchants
BELT ELEVATOR & FEED CO., Receivers, Shippers
BERT A. BOYD GRAIN CO., Grain Commission
CLEVELAND GRAIN CO., Grain Commission
WM. R. EVANS GRAIN CO., Brokers and Commission
P. M. GALE GRAIN CO., Grain, Feed
GOLDBERG GRAIN COMPANY, Consignments
HEINMILLER GRAIN CO., Receivers and Shippers
HAYWARD-RICH GRAIN CO., Commission, Brokerage
HILL, LEW, Strictly Commission
HOOSIER GRAIN CO., Consignments only

KENDRICK & SLOAN CO., Hay and Grain
H. E. KINNEY GRAIN CO., Receivers and Shippers
LAMSON BROS. & CO., Grain, Seeds
E. LOWITZ & CO., Grain Commission
McCARDLE-BLACK CO., Grain Merchants
CARL D. MENZIE GRAIN & BROKERAGE CO., Brokers
and Grain Commission
MERCHANTS HAY & GRAIN CO., Hay, Grain, Feed
SAWERS GRAIN CO., Consignments, Commission
and Brokerage
URMSTON GRAIN CO., Grain Commission
FRANK A. WITT, Grain Commission and Brokerage

If You Could Cut it Open and See—

You may not be a belting expert—and you may not care to be. But it would prove of value to you in determining the belting you should buy if you could take a piece of Rexall, cut it open, and see how it is made. You would see



1

The heavy 37½-oz. fabric, built ply on ply—closely woven to give tensile strength and rugged body.

2

The basic double-stitched and inner-locked construction that defies ply separation.

3

The sturdy and sinewy weave which holds hooks, bolts and fasteners so they can't work loose and pull out.

4

The reinforced cushion-like edges that prevent edge abrasion.

5

How the Rexall Preservative Gum impregnates every fibre and fills every pore of the fabric, blending with the natural oils to produce lasting vitality and pliability under every condition.

If you could do the same with any other known fabric belting—and compare the construction—you would then see why you are assured belt economy and service in

REXALL

DOUBLE — STITCHED
CONVEYOR and ELEVATOR

BELTING

IMPERIAL BELTING COMPANY

Factory and General Offices: CHICAGO

Branches: New York

Pittsburgh

Detroit

Salt Lake City



400,000 BUSHEL ELEVATOR

FOR

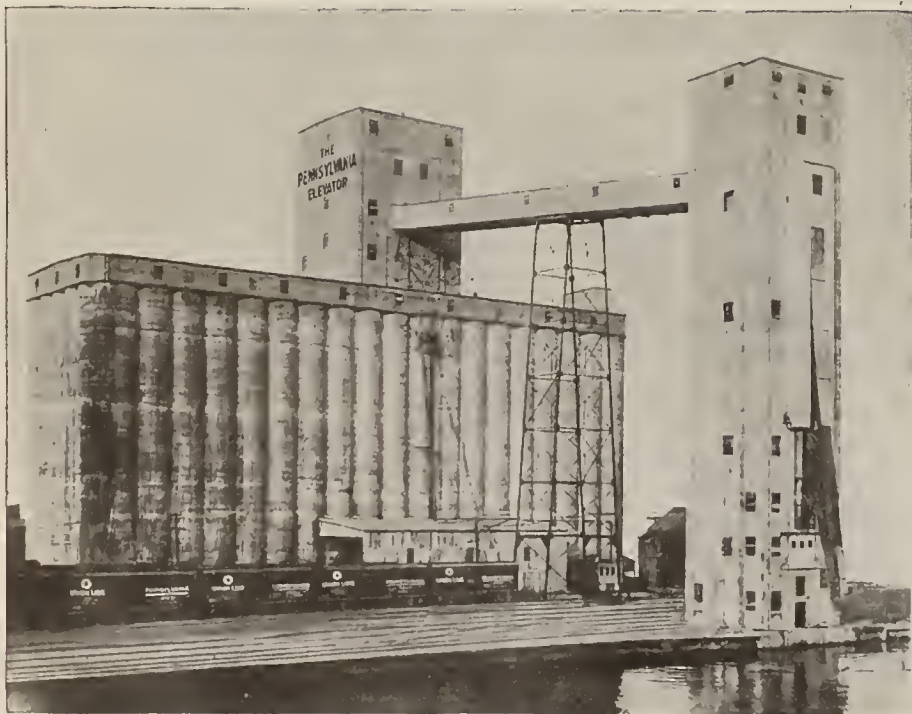
Postum Cereal Co.

Battle Creek, Mich.

MAKERS OF

POST TOASTIES, POSTUM CEREAL
AND GRAPENUTS**"There's A Reason"****Macdonald Engineering Company**

53 W. Jackson Boulevard, Chicago

The
POLK SYSTEMAll-Steel Machines
for all kinds of**CIRCULAR CONCRETE**
CONSTRUCTION*We contract grain storages***POLK GENUNG POLK COMPANY**Great Northern Bldg.
ChicagoFort Branch
Indiana**FOLWELL-AHLSTOG CO.****Engineers and Contractors***Designers and Builders*
OFGrain Elevators, Flour Mills, Industrial Plants, and other
Engineering Works

PENNSYLVANIA RAILROAD COMPANY ELEVATOR, ERIE, PA.

1,250,000-bushel Concrete Workinghouse and 25,000-bushel Marine
Tower. Reinforced Concrete. Latest improvements. Write us for
designs and estimates.

2051-6 McCORMICK BUILDING, CHICAGO

Reinforced Concrete StorageArgo Illinois Plant
Corn Products Refining Company*One of Forty Structures We Have
Built for this Company***LEONARD CONSTRUCTION COMPANY**
ENGINEERS and
CONSTRUCTORSMcCormick Bldg.
CHICAGO6 Church Street
NEW YORK*We Invite Your Inquiries*

**TWO MILLION BUSHEL FIRE PROOF
RECEIVING ELEVATOR**

FOR

Washburn-Crosby Company
Minneapolis, Minn.*Write us for designs and estimates*

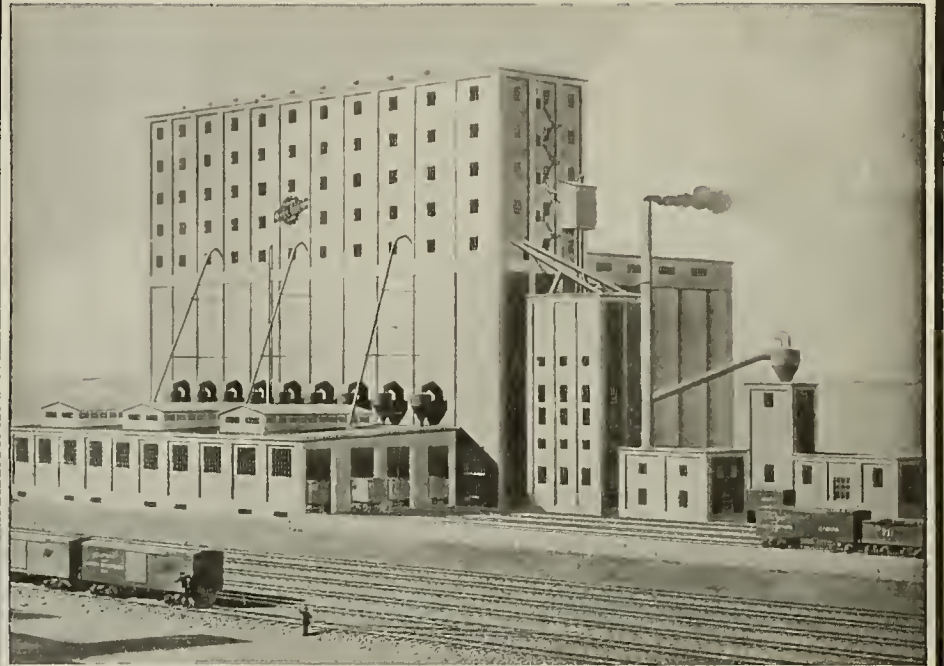
We Design and Build Elevators, any type of construction, in any part of the World.

JAMES STEWART & CO., Inc.
GRAIN ELEVATOR DEPARTMENT

Fifteenth Floor of Westminster Building

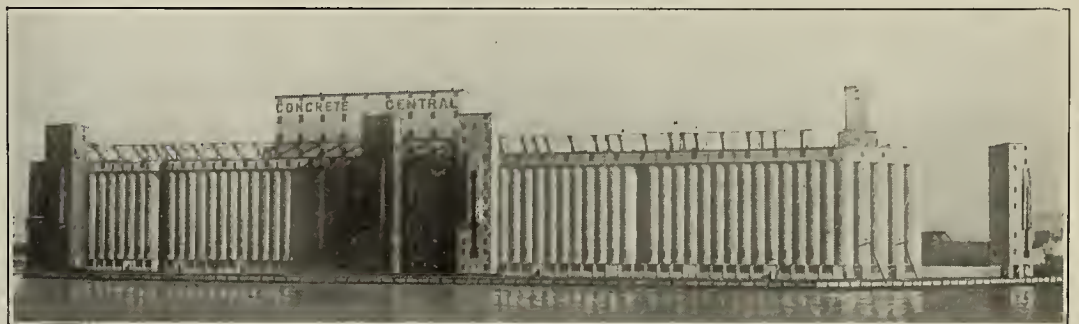
CHICAGO, ILL.

W. R. SINKS, Manager

Chicago & Northwestern Railway Company's New
Reinforced Concrete Grain Elevator Being Built
at Council Bluffs, Iowa, for the Updike
Grain Company of Omaha, Neb.Our experience covers every branch of grain elevator
building work as well as any type or style of construc-
tion to meet requirements in any locality.*Designs and estimates promptly furnished***Witherspoon-Englar Company**

1244-1250 Monadnock Bldg.

CHICAGO, ILL.

MONARCHBuilt Elevators
Assure You
Economical Design
First Class Work
Efficient Operation
and
Satisfaction
Let Us Submit
Designs and PricesOne of the Modern Houses Which Has Made a Record
for Rapid and Economical Handling
CONCRETE CENTRAL, BUFFALO, 4,500,000 Bu.**MONARCH ENGINEERING CO.****BUFFALO, N. Y.****The Barnett & Record Company****GENERAL CONTRACTORS**

Designers and Builders of

Grain Elevators, Flour Mills and Heavy StructuresReinforced Concrete and Steel Ore Dock con-
structed at Superior, Wisconsin, for the Allouez
Bay Dock Company. Entirely Fireproof.*Write for Designs and Estimates*

OFFICES:

Minneapolis, Minn.

Duluth, Minn.

Fort William, Ontario



Canadian Government Railway's Elevator and Gallery System, St. John, New Brunswick.

Recently Completed

Capacity 500,000 Bushels

Designing and Consulting Engineers for Entire Work

JOHN S. METCALF CO., Limited
GRAIN ELEVATOR ENGINEERS

54 St. Francois Xavier Street, Montreal, Canada

125 Strand, London, W. C. 2, England

395 Collins Street, Melbourne, Australia

108 S. La Salle Street, Chicago, Ill

BALLINGER & McALLISTER
CONTRACTORS - DESIGNERS
Grain Elevators Ear-Corn Plants

Unity Bldg.

COMPLETE

Bloomington, Ill.

BLAYLOCK & KNAPP
STEEL CONTRACTORS

Monadnock Block

CHICAGO, ILL.

*All classes of Steel and Iron Work designed, delivered
and erected complete.*

We furnished the steel and iron work for the following recently constructed grain elevators and mills: C. & N. W. Ry. Elevator, Council Bluffs; Kentucky Public Elevator, Louisville; American Milling Co., Peoria; Municipal Grain Elevator, Portland, Ore.; Rosenbaum Bros.' Feed Mills, Chicago, etc.

L. A. STINSON

CONSULTING ENGINEER

H. E. GODFREY, Civil Engineer

ELEVATORS, MILLS AND WAREHOUSES
COMPLETE

National Life Building

Chicago, Ill.

Grain Driers, General Overhauling and Improvements

WALLS, BINS and GRAIN ELEVATORS

By MILO S. KETCHUM

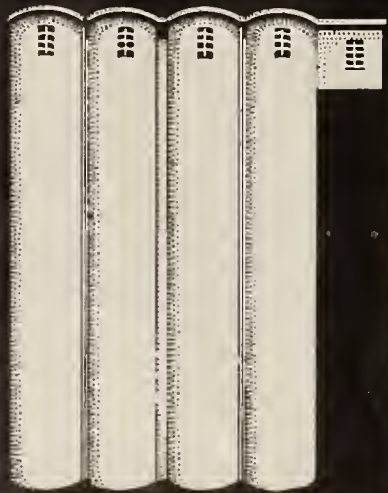
Second Edition. 556 pp., \$5.00

Design and construction are covered completely in this book. The new edition brings it up to the minute with fresh data, new cuts, and a modern treatment throughout. Over 150 pages were added to the old edition. The new chapters on "Reinforced Concrete" and "Methods of Construction and Cost of Retaining Walls" are especially valuable. It is the standard work on stresses due to granular materials.

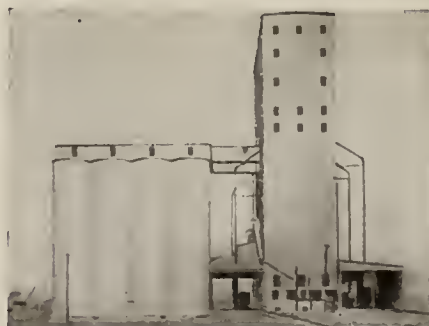
MITCHELL BROS. PUBLISHING CO., 431 So. Dearborn St., Chicago, Ill.

**CONCRETE
ELEVATORS
and MILL
BUILDINGS**

DEVERELL, SPENCER & CO.
GARRETT BUILDING
BALTIMORE, MARYLAND



OUR 1919 RECORD



Kansas City Southern Ry. Terminal
Elevator

We have taken over 100 contracts. We have completed most of them, and we will add 100 to our customers list. Our services are available to you.

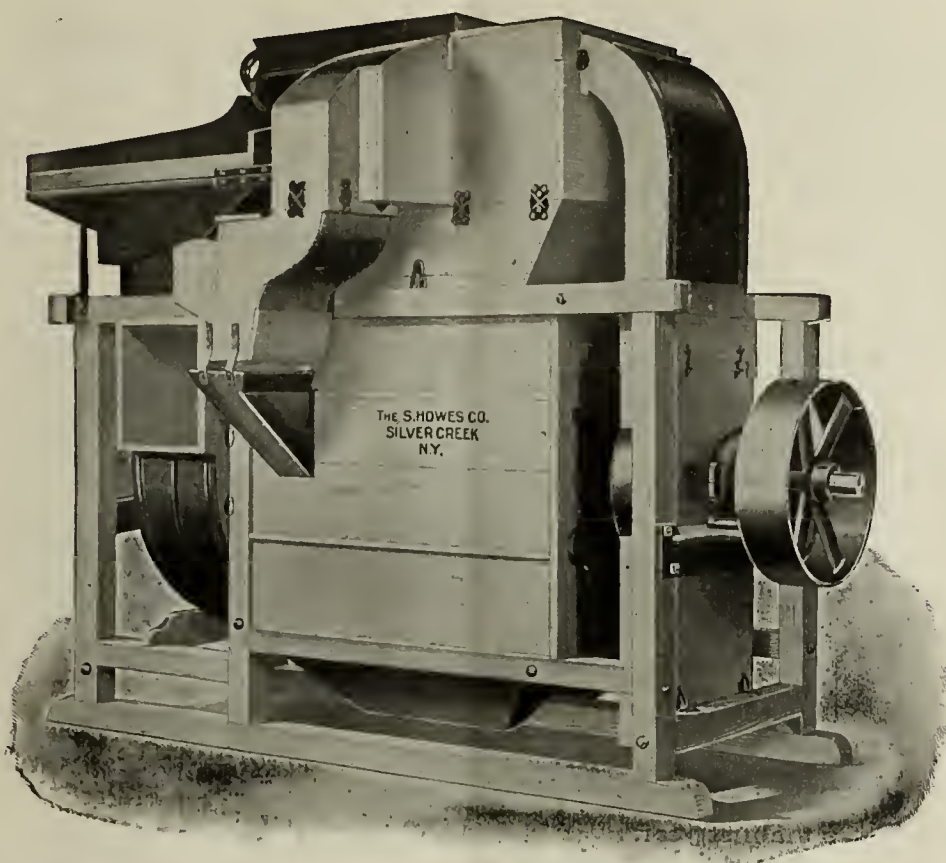
*Call, wire or write
and we will be there.*

Grain Elevators, Mills, Coal
Pockets

Burrell Engineering & Construction Co.

WEBSTER BUILDING

CHICAGO, ILL.



The thing the owner of a "Eureka" admires most in his machine is its Constancy. He knows that he can always depend upon it to do satisfactory cleaning. It gives him Constancy in performance, and he gives it back Constancy in friendship. Thus do the manufacturer's sales grow by one owner recommending the "Eureka" to another.

EUREKA OAT CLIPPERS

have distinguished themselves over a long period of years in the hands of men who insist that things must move with clock-like regularity, and who judge equipment by its ability to do good work 365 days a year.

S. HOWES COMPANY, Inc.
SILVER CREEK, N. Y.



"Eureka"
Oat Clipper

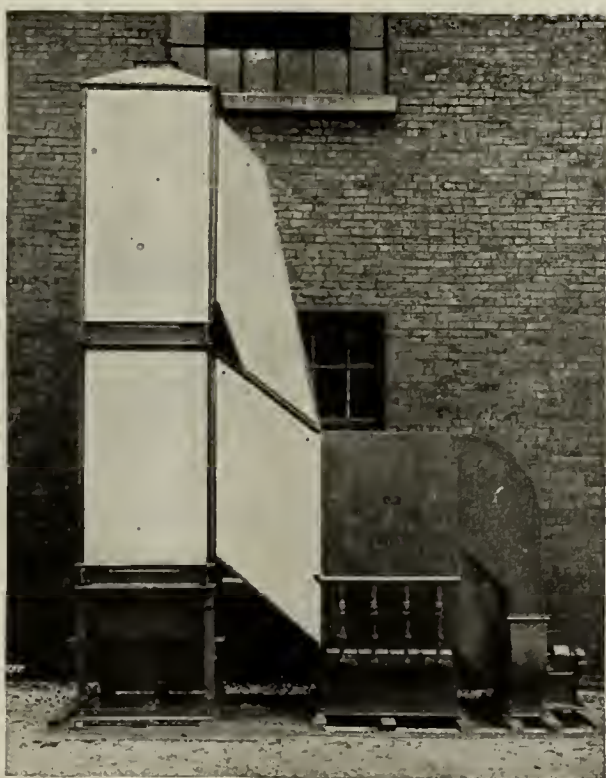


with Ball Bearings

Ask someone who owns one

REPRESENTATIVES

William Watson, Room 415, 111 West Jackson Blvd., Chicago, Ill.
Geo. S. Boss, Osborne House, Rochester, N. Y.
J. E. Gambrill, 749 E. Church St., Marion, Ohio.
W. M. Mentz, General Delivery, Sinks Grove, W. Va.
J. Q. Smythe, 3951 Broadway, Indianapolis, Ind.
F. E. Dorsey, Savoy Hotel, Kansas City, Mo.



No. 1-5-5 Portable Drier

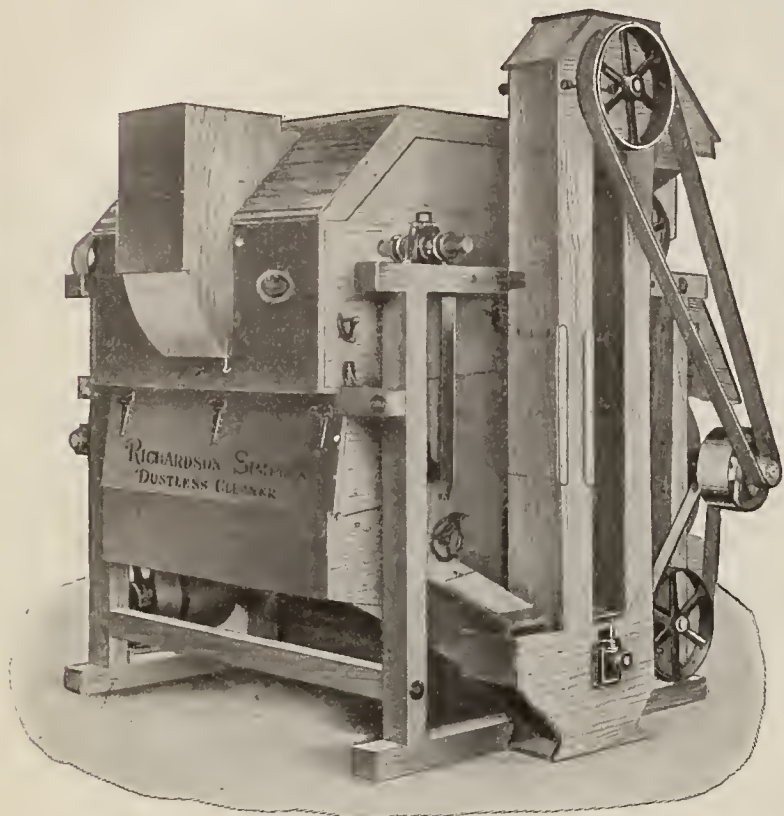
For THE SMALL MILL

The accompanying illustration shows our smallest portable drier and cooler. It has an hourly capacity on wheat or corn of 30 bushels per hour. It stands 14 feet high, is 10 feet 8 inches long, and 2 feet 9 inches wide. The entire apparatus is built of the same material and gauges as our larger driers and is a practical machine in every respect. Send for catalog 26.

If you are in need of a rotary drier for meal, grits, etc., it will be worth your while to write for information on the Ellis Ball Bearing Rotary. It is in a class by itself.

THE ELLIS DRIER COMPANY, Chicago, U. S. A.

THE RICHARDSON SIMPLEX



THE DUSTLESS CLEANER

Have You Ever Noticed

how dirty some elevator work floors are—some cleaner throwing out clouds of dust, causing personal discomfort and possibilities of advanced insurance rates?

Those Houses Do Not Have the SIMPLEX CLEANER

Easy to Operate—Large Capacity—Small Floor Space

Wheatland, Wyo., April 9, 1919.

Richardson Grain Separator Co.,
Minneapolis, Minn.

Gentlemen:

We are so well satisfied with the work of the No. 2-60- Richardson Simplex Grain Separator we bought from you in January for our elevator at Wheatland, Wyoming, that you may book our order for a No. 3-70- Simplex to be shipped to us at Slater, Wyoming about July 1st, 1919.

The workmanship, material used in their construction and the class of work they do put the Richardson Simplex Cleaner in a class by themselves.

Had we had our elevators equipped with these cleaners at the beginning of the season they would more than have paid for themselves the first year.

We certainly would advise any one intending to build an elevator to look over the Richardson Simplex Cleaners before placing an order for any other make, for they have the capacity and deliver the goods.

Yours truly,
Manning Elevator Co.,
By S. Manning, Mgr.

Write for full information

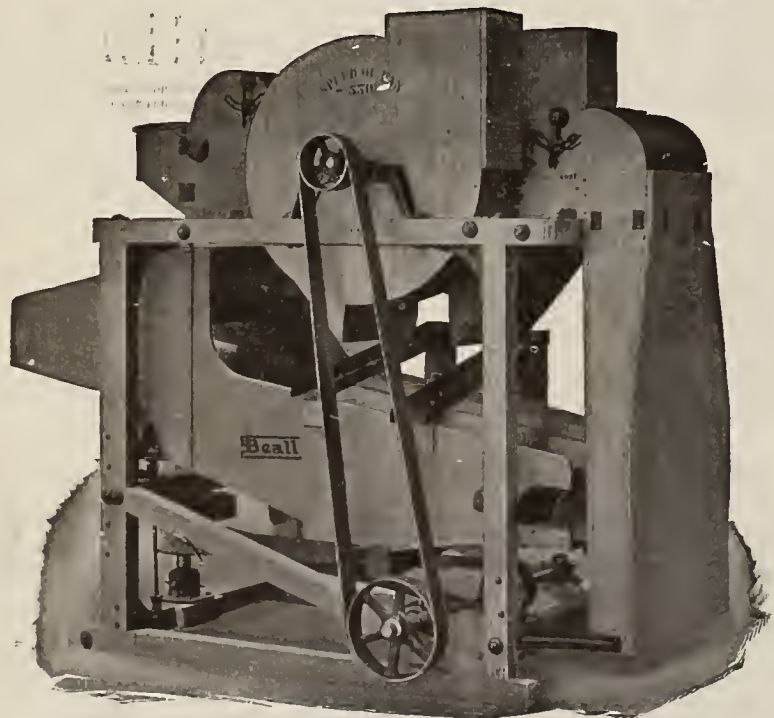
Richardson Grain Separator Co.
Minneapolis Winnipeg

The Beall Improvements Co., Inc.

Decatur, Ill.

SPECIALIZING IN

Warehouse and Elevator Separators



BUILT IN TEN SIZES.

We are unable to enumerate in this space the unique and valuable features incorporated in the Beall Warehouse and Elevator Separators. The proof of their efficiency lies in the large number of machines sold, and the demand is growing constantly. If you are in the market for machines of this character

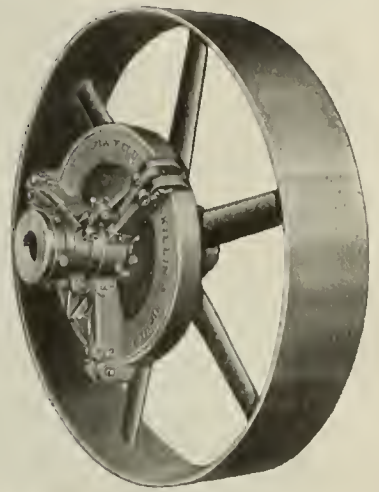
WRITE FOR ILLUSTRATED CATALOG

Beall

THE MARK OF QUALITY

A Careful Scrutiny

of your grain elevator machinery equipment may show something lacking which would give a perfect, economically working outfit. Be sure we have the needed machinery in our new catalog No. 18. The illustrations shown herewith are from its 500 pictorial pages.



Standard Steel Plate Clutch and Pulley.



Rack and Pinion Discharge Gates for Steel Conveyor Box.

If you do not have our new catalog No. 18 on your desk, send for one today. Its use will save time in busy moments.

Skillin & Richards Mfg. Co.

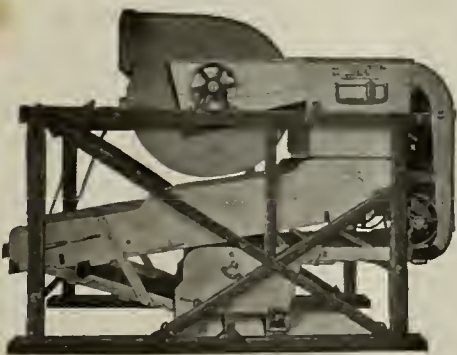
4515-4560 Cortland Street, Chicago, Ill.

In figuring on your new elevator machinery equipment, bear in mind that the trademark of Skillin & Richards Mfg. Co. means the responsibility of a house of over a quarter century experience in building this class of machines. Bear in mind also that our guarantees cover all imperfections in materials and workmanship for a period of one year, all defective parts being replaced without charge.



Standard Weight Screw Conveyor.

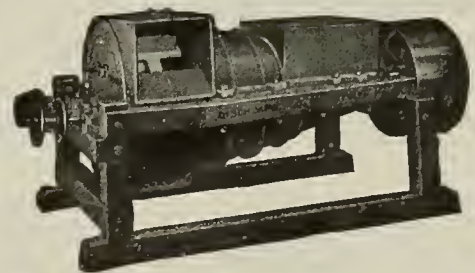
THERE'S a satisfaction in "Constant" Machines that only users know. Specify "Constant" when ordering the needed equipment.



The U. S. Grain Cleaner



The Constant
Safety
Ball-Bearing
Man-Lift



The U. S. Corn Sheller

Everything for the Grain Elevator. Send for Our New Large Catalog and keep it for reference.

B. S. CONSTANT MANUFACTURING CO.

BLOOMINGTON

ILLINOIS



You need this sturdy, capable, general purpose mill

For grinding feed, table corn meal, pearl meal, linseed, etc., you can use this mill with great profit. This mill is built by men who know milling conditions, for those who want the best in milling equipment.

N. & M. Co. Three Pair High Mill

It has the characteristic N. & M. Co. rugged strength combined with flexibility of operation necessary to handle widely different stocks. Will grind extremely fine, medium or coarse, just as you wish.

Solid one piece cast frame—doors for examining stock beneath each pair of rolls—Ansonia rolls with our easy running, long wearing, collar oiling bearings—one lever simultaneously spreads or closes all three pairs of rolls—any pair of rolls may be removed without disturbing the others—furnished with either belt or gear drive on slow side.

See book on Mills, No. 1290 for details.
If you haven't got it we will send it on request.

Everything
for the
Modern
Mill

Nordyke & Marmon Co.

INDIANAPOLIS, IND.

Established 1851

Ask for
Catalogs
on any
Equipment
you need

America's Leading Mill Builders



The Sign of Efficiency
MORSE DRIVES
Positive as Gears
Flexible as a Belt
Longer Life



Wichita Terminal Elevator, Wichita, Kan.

"Another Morse"

In the Wichita Plant there are 20 Motors with Morse Drives, Aggregating 590 Horsepower.

FIFTY county elevators out of 97 examined, were equipped with motors ranging from 10 to 50 horsepower.

COME TO US if you have belting difficulties with a higher cost and a lower output per unit power than your competitors.

MORSE DRIVES will meet every demand of the World's Peace Markets as they met every war emergency

**Wages do not come from Capital,
but Production**

American labor can only meet foreign labor by greater production.

MORSE DRIVES have always increased production and met every demand for positive, uniform, non-slipping, high-speed production. Built for great power and 100 per cent overloads.

Morse Drives

Give greater output in a given time.
Give steadily, noiseless, clean, never failing.
Cost less to operate, 99% efficient.
Longer life, less to maintain, less depreciation.

Morse Engineering Service

Whenever you have any special problems with which you feel we can help you, please call our nearest office. Confer with our experts. A drive somewhere may need speeding up, or for special service in Dust, Gases, Steam, around acids, or increase power.

MORSE Drives insure against competition.

**Let us have your problem.
You will be in no way obligated.**

*Largest Manufacturers of Chain
Drives in the World*

Morse Chain Co., Ithaca, N. Y.

ENGINEERING SERVICE OFFICES

BOSTON, Mass.....141 Milk Street	KANSAS CITY, MO., Morse Engineering Co.
CHICAGO, Ill. Merchants L. & T. Bldg.	R. A. Long Building.
CLEVELAND, O.....Engineers Bldg.	MINNEAPOLIS, Minn., Strong-Scott Mfg. Co.
DETROIT, Mich..1003 Woodward Ave.	413 Third Street, S.
GREENSBORO, N. C..805 Ashboro St.	ST. LOUIS, Mo., Morse Engineering Co.
NEW YORK CITY...50 Church Street	Chemical Building.
PITTSBURGH, Pa. Westinghouse Bldg.	CANADA.....Jones & Glassco, Regis'd
SAN FRANCISCO, Cal., Monadnock Bldg.	Montreal, St. Nicholas Building.
ATLANTA, Ga....Earl F. Scott, M.E.	Toronto, Bank of Hamilton.
Candler Bldg.	

WATERBURY FIBRECLAD ROPE



AS STRONG as Manila rope three times its size—and weighs only half as much.

As flexible and as easily manipulated as Manila rope—and less cumbersome.

Won't rust, because of the marline serving—which retains the internal lubrication on the wire strands.*

Will outwear either bare wire or Manila rope under all ordinary conditions—and so is more economical.

Here's the Fibreclad story in a nutshell: superior, from the standpoints of both service and economy.

And Fibreclad is a Waterbury rope—which is all you need to know about its quality.

WATERBURY COMPANY
63 PARK ROW, NEW YORK

Chicago - 1315-1321 W. Congress St. New Orleans, 1018 Maison Blanche Bldg.
San Francisco - 151-161 Main Street Dallas, Texas - A. T. Powell & Company

*The Waterbury Rope Handbook explains the advantages of Fibreclad construction—and in the rest of its 220 pages holds all other rope information you could wish for. A copy is yours for the asking.



2334-W

Bauer

SCIENTIFIC

"Scientific"
Attrition
Mills



There's a Big Advantage in This Hinged Case

It means instant accessibility to the plates for inspection or replacement. The casing hinges open, exposing practically the entire diameter of the Mill heads. No heavy parts to lift.

Plates may be changed very quickly with the least inconvenience to the operator, and without disturbing any of the Mill adjustments.

This is just one of the desirable and excellent features of the Bauer "Scientific" Ball Bearing Attrition Mill. There are fourteen others.

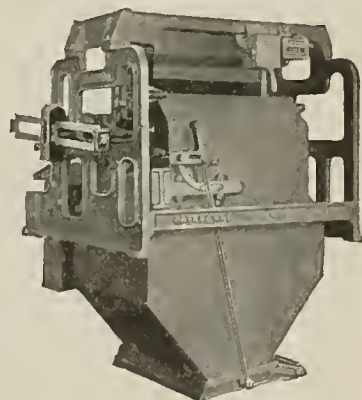
Ask for Our Catalog

THE BAUER BROS. CO.
517 Bauer Bldg. Springfield, Ohio, U. S. A.

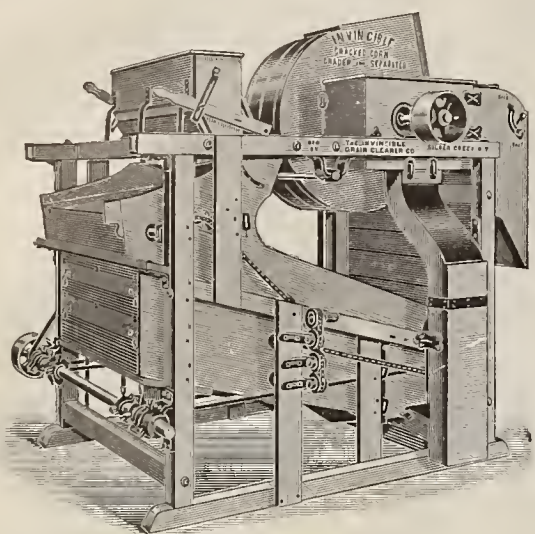
SCIENTIFIC

Accurate — Dependable FAIRBANKS Automatic Scales *equipped with* Type Registering Counter

To give you accurate every day knowledge of the exact amount of each kind of grain that passes through your elevator. Weighs same weight per discharge on all grains—Does away with changing weights in weigh-box. Backed by nearly ninety years of scientific scale construction.



Fairbanks, Morse & Co.
MANUFACTURERS CHICAGO
Engines - Motors - Scales - Light Plants - Feed Grinders, etc.



Intensified Poultry Raising is creating a greater demand for graded cracked corn.

Three grades of cracked corn with hulls and meal removed separately is the only profitable method of manufacture.

The machine that will accomplish this is the machine to install. Let us refer you to those in your vicinity using the INVINCIBLE.

Invincible Grain Cleaner Company
Silver Creek, N. Y.



"The Standard" Scales

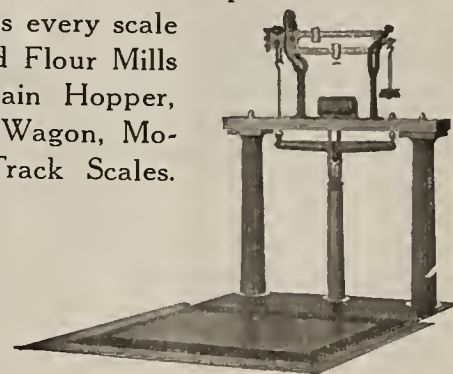
FOR GRAIN ELEVATORS

Accurate Dependable Durable

"The Standard" Scales are guaranteed to be strictly high grade throughout, both in material and workmanship.

"The Standard" line includes every scale used in Grain Elevators and Flour Mills—Portables, Dormants, Grain Hopper, Wagon, Automatic, Dump, Wagon, Motor Truck and Railroad Track Scales.

Send today for our latest Scale Catalogue No. 73. Mention the type of scale in which you are interested and we shall be pleased to give you full information regarding prices, etc.



The Standard Scale & Supply Company
1631 Liberty Avenue, PITTSBURGH, PA.

NEW YORK, 145 Chambers Street
PHILADELPHIA, 523 Arch Street

CLEVELAND, 1547 Columbus Road
CHICAGO, 163 North May Street
BALTIMORE, 409 North Gay Street

The Corn Exchange National Bank

OF CHICAGO

Capital - - \$ 5,000,000.00
Surplus and Profits 10,000,000.00

OFFICERS

ERNEST A. HAMILL, President	JAMES G. WAKEFIELD, Cashier
CHAS. L. HUTCHINSON, Vice-Pres.	LEWIS E. GARY, Asst. Cashier
D. A. MOULTON, Vice-President	EDWARD F. SCHOENECK, Asst. Cashier
OWEN T. REEVES, JR., Vice-President	JAMES A. WALKER, Asst. Cashier
J. EDWARD MAASS, Vice-President	CHARLES NOVAK, Asst. Cashier
NORMAN J. FORD, Vice-President	JOSEPH C. ROVENSKY, Asst. Cashier

DIRECTORS

CHARLES H. WACKER	CLYDE M. CARR
MARTIN A. RYERSON	J. HARRY SELZ
ROBERT J. THORNE	EDWARD A. SHEDD
EDWARD B. BUTLER	WATSON F. BLAIR
CHARLES H. HULBURD	ERNEST A. HAMILL
BENJAMIN CARPENTER	CHARLES L. HUTCHINSON
HENRY P. CROWELL	EDMUND D. HULBERT
CHAUNCEY B. BORLAND	

UNITED STATES DEPOSITARY

Foreign Exchange

Cable Transfers

Letters of Credit

Accounts of grain elevator operators and commission men throughout the country respectfully solicited

Stern, Costly Facts

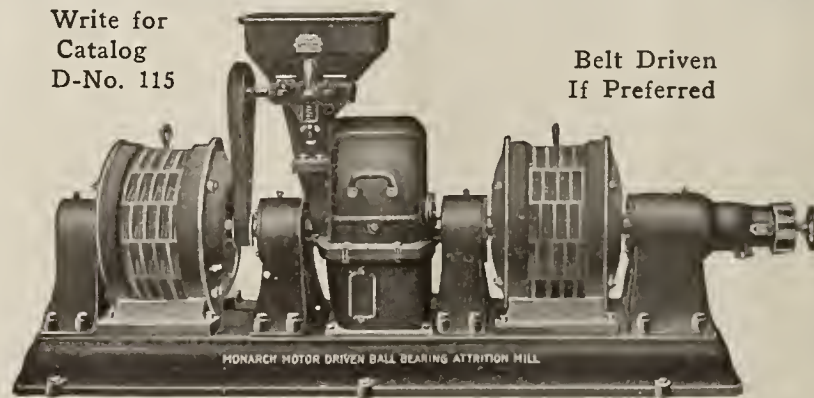
Are the little daily losses in time and lubricant; the repair stops and expenses; the trouble caused by uneven grinding and the maintenance bills of a babbitt bearing, out-of-date feed grinder.

We ask, as a plain business proposition, which would pay you better, to ignore these losses, which, in the aggregate, soon amount to a substantial sum of real money, or to protect yourself permanently from such loss by investing in

The Monarch Ball Bearing Attrition Mill

Write for
Catalog
D-No. 115

Belt Driven
If Preferred



The Monarch is never careless, heedless or inattentive to business. Ball bearings practically eliminate friction, institute perfect and permanent tram, chase away power and lubricant losses, and inaugurate and continually safeguard uniform grinding.

The mission of this mill is to protect your profits; not by the grace of luck, but by inbuilt, original features which never cease to exist.

SPROUT, WALDRON & CO.

Main Office and Works, MUNCY, PA. P. O. Box 320

Chicago Office: No. 9 South Clinton Street

Rope Drives

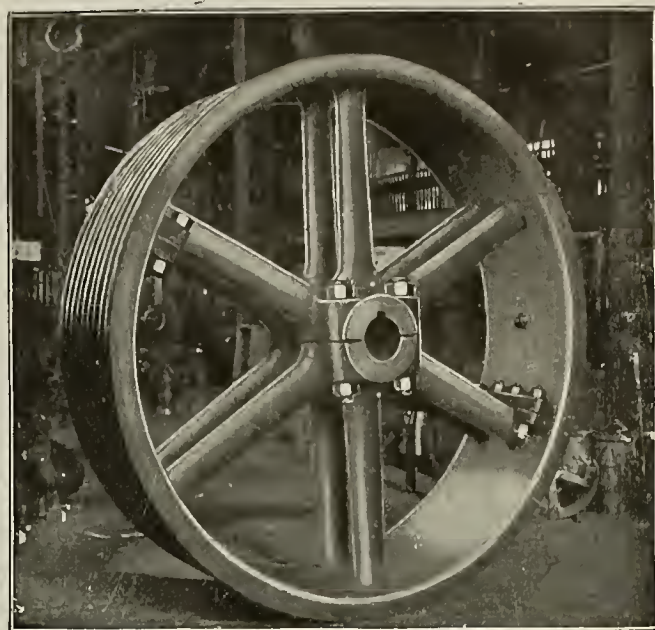
We design and install complete rope drives. We are experienced in this line, and drives designed by us are successful. We supply the best grade of Manila rope. Our Machine-molded sheaves are perfect in balance, accurately finished and free from flaws injurious to the rope.

We cast and finish sheaves of all sizes—English or American system—Pulleys, Band Wheels, Flywheels, Drums, Gears, Sprocket Wheels, etc. We manufacture Shafting, Pillow Blocks, Hangers, Floor Stands, Elevator Casings, Heads and Boots and all kinds of Elevating, Conveying and Power-Transmitting machinery. Headquarters for Supplies.

H. W. Caldwell & Son Co., Chicago

Western Ave., 17th-18th Sts.

NEW YORK, 'Fulton Bldg., Hudson Terminal, 50 Church Street
DALLAS TEXAS, 711 Main Street



THE COMMON VERDICT

C. W. STONER AND SON
Grain—Lumber—Coal
Iroquois, South Dakota

August 22, 1919

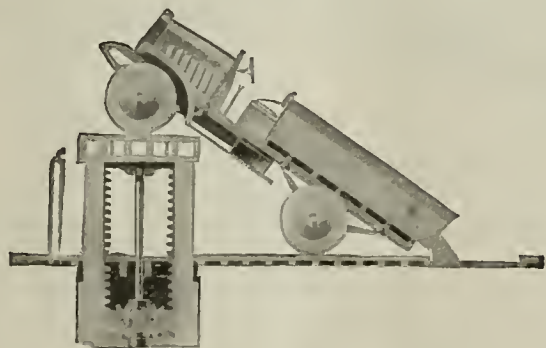
Trapp-Gohr-Donovan Co.,
Omaha, Nebr.

Gentlemen: Enclosed please find check in payment for your Auto Truck and Wagon Dump.

We want to say that this dump is one of the greatest inventions for the Grain Man and Farmer that has ever been invented. We could not get a carpenter and so we went to work and put it in ourselves.

Yours truly,
C. W. STONER AND SON.

S
A
F
E



S
T
R
O
N
G

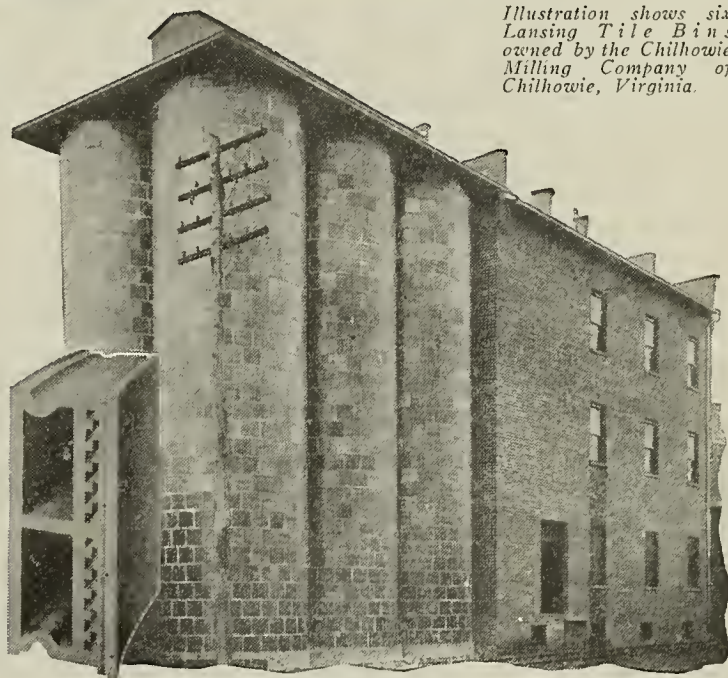
*You'll say so too.
Write for particulars*

TRAPP-GOHR-DONOVAN CO.

1125 North 22nd St.

Omaha, Neb.

J. W. PARKIN, SOUTHWESTERN DISTRIBUTOR
4220 Prospect Ave., Kansas City, Mo.



*Illustration shows six
Lansing Tile Bins
owned by the Chilhowie
Milling Company of
Chilhowie, Virginia.*

Reduce Grain Fire Hazards

Grain stored in Preston-Lansing Tile Grain Bins is safe. Vitrified tile can not burn—it is fire-proof, rat-proof and moisture proof.

Preston-Lansing Tile Grain Bins

are indestructible! The tile blocks fit together in "ship-lap" formation, bracing tile against tile. The deep grooves at top and bottom of each block provide an extra thick layer of cement. This arrangement, with the special twisted steel reinforcement between each row of

blocks, withstands any strain from the weight of the grain or wind pressure. The first outlay is your only expense—year-in-year-out service makes Lansing Tile Bins cheapest in the long run. They last indefinitely without upkeep or repairs.

Write for our Catalog and Prices

J. M. Preston Company, Dept. 426, Lansing, Michigan

Reliance Construction Company

Furnish Plans, Estimates and Build
COUNTRY GRAIN ELEVATORS

Our long experience as a builder of elevators insures you an up-to-date house. Write today.

625 Board of Trade Building,

INDIANAPOLIS, IND.

Elwood's Grain Tables

Show the value of any number of bushels or pounds of WHEAT, RYE, OATS, CORN OR BARLEY at any given price from 10 cents to \$2.00 per bushel. One of the most useful books ever offered to millers. Indorsed by prominent millers and grain dealers. Bound in cloth, 200 pages. Mailed on receipt of price.

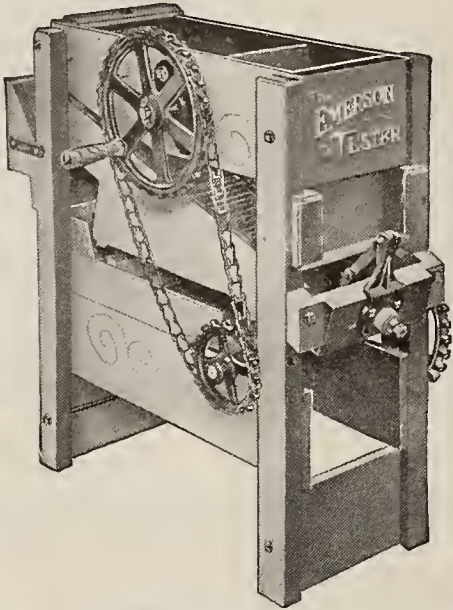
\$1.50

Mitchell Brothers Publishing Co., 431 S. Dearborn St., Chicago, Ill.

The Official Grain Dockage Tester

Adopted by U. S. Grain Standardization Department

Emerson Wheat Testers or Kickers make an absolute perfect separation of oats from wheat—eliminate all guess-work, all disputes between buyer and seller are settled on the spot.



Farmers prefer to buy and sell where the test is made with the Emerson. The Government laboratories and inspection depots of the U. S. Grain Standardization Department are equipped with over 100 Emerson Testers. Over 10,000 of these machines in use. We make larger sizes that also make a perfect separation of oats from wheat. Write for pamphlet giving full description and unsolicited comments.

EMERSON MFG. CO.

MINNEAPOLIS, MINN.

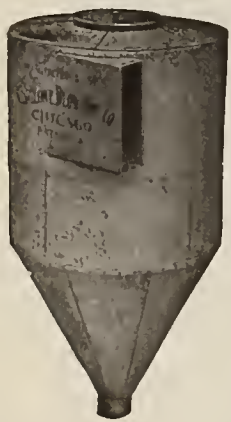
WINNIPEG, CANADA

THE RECORDS

of the
**Flour Mill and Grain Elevator
Mutual Insurance Companies**

show that 80% of all fires in Mills or Elevators start in elevators. The installation of an automatic feeding device which will positively prevent an elevator choking from over-feeding and an automatic relief which will prevent an elevator choking from bin getting full or spout choking, will annually save millions of dollars in fire loss and add at least 50% to efficiency of any stand of grain elevators. These devices are perfected and are available for mill and elevator owners, are very inexpensive and absolutely practical. Full particulars will be furnished free of charge by this office, on request.

Mutual Fire Prevention Bureau
OXFORD, MICHIGAN



Let Us
Tell You
HOW

IT'S TIME to think about
installing a
Cyclone Dust Collector

You've never made a wiser, better or more profitable investment for your elevator business.—Write.

CYCLONE BLOW PIPE CO.
2542-52 Twenty-first Street, Chicago, Ill.

Complete new systems installed on modern plans and guaranteed. Old systems remodeled on modern lines on most economical plans. Supplementary systems added where present systems are outgrown. Defective systems corrected and put in proper working order.

Write to Kellogg

We Are Paying Top-o'-the-Market
Prices for

ALSIKE	RED CLOVER
ALFALFA	WHITE CLOVER
	SWEET CLOVER

Send Us Samples

Whenever you're in the market—to buy or to sell—in carload lots or less—it will always pay you to
WRITE TO KELLOGG

Kellogg FIELD and GRASS Seed Co.
186-7 FLORIDA ST. MILWAUKEE, WIS.

**LET OUR ENGINEER
SOLVE YOUR
DRYING PROBLEMS**

The Toledo Grain Drier

Manufactured by

The J. D. Gerken Company

25-29 Ontario Street

Toledo, Ohio

GRAIN DRIERS

are essential to conservation of corn. No modern grain handling plant should be without one. Allow us to place before you plain, honest facts concerning driers and learn why the one pre-eminent is

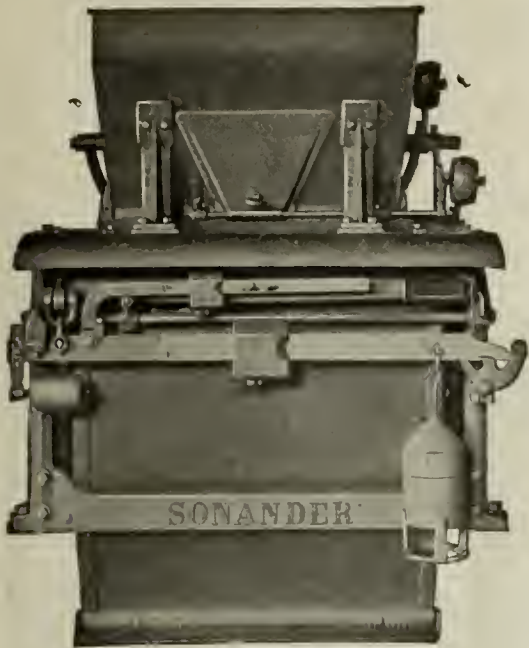
MORRIS

"The drier designed to ultimately cost less"

The Strong-Scott Manufacturing Co.

"Everything for every mill and elevator"

MINNEAPOLIS GREAT FALLS SPOKANE WINNIPEG, CAN.



Every grain shipper must "maintain adequate weighing facilities," etc., according to Section 21 of the Pomerene Bill. Then why not install a

SONANDER Automatic Grain Scale

You will have to comply with the term "adequate" and surely want to insure payment of your railroad claims.

Write to your nearest office for booklet of accurate weighing of grain and the accuracy of the Sonander.

Howe Scale Co. of Illinois

409 Fourth St., St. Louis, Mo.
1510 Main St., Kansas City, Mo.

F. L. Rogles, Mgr.
W. C. Peak, Mgr.

Pacific Scale & Supply Co.
For Washington, Oregon and Idaho

46 Front St., Portland, Ore.
546 First Ave., So. Seattle, Wash.

Wm. Schweizerhof, Mgr.



HUMPHREY Service Belt Elevators

specified by the largest and best Engineering, Constructing and Mill Building Companies in the World—WHY?

Because the HUMPHREY is the best—The original improved construction—The record of 30 years and more continuous day-in and day-out service. A record that no other elevator can meet within 15 years.

Greater Output In Less Time

because employees can do more work without a useless waste of energy.

Write for Bulletin A-5 and learn how the "Humphrey Endless Belt Route" means DOLLAR DIVIDENDS to you.

If not made by Humphrey Elevator Company it's not a "Humphrey"

HUMPHREY ELEVATOR CO. Sole Manufacturers
FARIBAULT, MINN.

Elevator Machinery and Supplies

FLOUR and FEED MILL MACHINERY STEAM and GAS ENGINES

PULLEYS, SHAFTING, GENERAL POWER TRANSMISSION
MACHINERY, ROLL GRINDING AND CORRUGATING

Largest Factory and Stock in Western Country

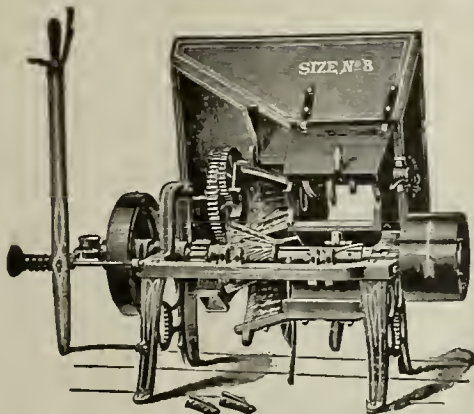
SEND FOR 450-PAGE CATALOG

GREAT WESTERN MFG. CO.

General Office and Factory
LEAVENWORTH, KAN.

Warehouse and Sales Room
1400-1402 West 12th St.
KANSAS CITY, MO.

Make Feed Grinding More Profitable!



Mill opens like this in six minutes.

Bowsher's "Combination" Mills do this

Because their large capacity, cone-shaped grinders and positive self ear feeders are properly designed to direct every ounce of power energy to the actual reduction of the grain.

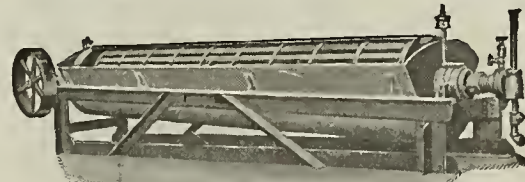
Crush and Grind ear corn, husked or unhusked, alone or mixed with any kind of small grain in any desired proportion. Reduce the material to any fineness desired for feeding purposes.

11 Sizes, 2 to 25 H.P.
Sold with or without Sacking Elevator.

The N. P. Bowsher Co., South Bend, Ind.

SEE THAT YOUR CONTRACT CALLS FOR

THE CUTLER MEAL DRYER



All Metal Steam Dryer

SOLD BY ALL
MILL
FURNISHERS

Not An
Experiment

IN SUCCESSFUL USE 40 YEARS DRYING

CORN MEAL, HOMINY, BREWERS' GRITS AND MEAL, AND ALL CEREAL
PRODUCTS. ALSO SAND, COAL DUST, GRAPHITE, CLAY, ORES, ETC.

Automatic in operation, requiring no attention

THE CUTLER CO., North Wilbraham, Mass.

CATALOG ON REQUEST

Seaport Brokerage Co.

WHOLESALE DISTRIBUTOR

**Handles Flour—Grain—Hay—
Mill Feed—Sweet Feed**

Warehouse Storage, Capacity 100 car loads.
Buys outright and handles consignments.
Enjoys good trade in Virginia, North and
South Carolina.

**LOCATED AT 30th ST. and C. & O. RY.
Newport News, Va.**

Grain Commission Accountants

I HAVE perfected a standardized but simple and complete book-keeping system for the Grain Commission Business. I can give you one Cash Journal which will reduce your journalizing and posting from 50 to 75 percent or I can give you separate records of uniform size which can be kept by different accountants and can provide a separate record for from one to twenty bank accounts.

I can give you a ledger that will reduce your work and the time of posting fully 60 percent and give you the correct balance of each account after every posting.

I have solved your account-keeping problems just as I have done for many other lines of business during the last 30 years.

I want to show this simple, complete and satisfactory system to you and have one of my trained auditors install it for you just as soon as you are ready.

**The Edward A. Pratt
Audit Co.**

Edward A. Pratt

President.

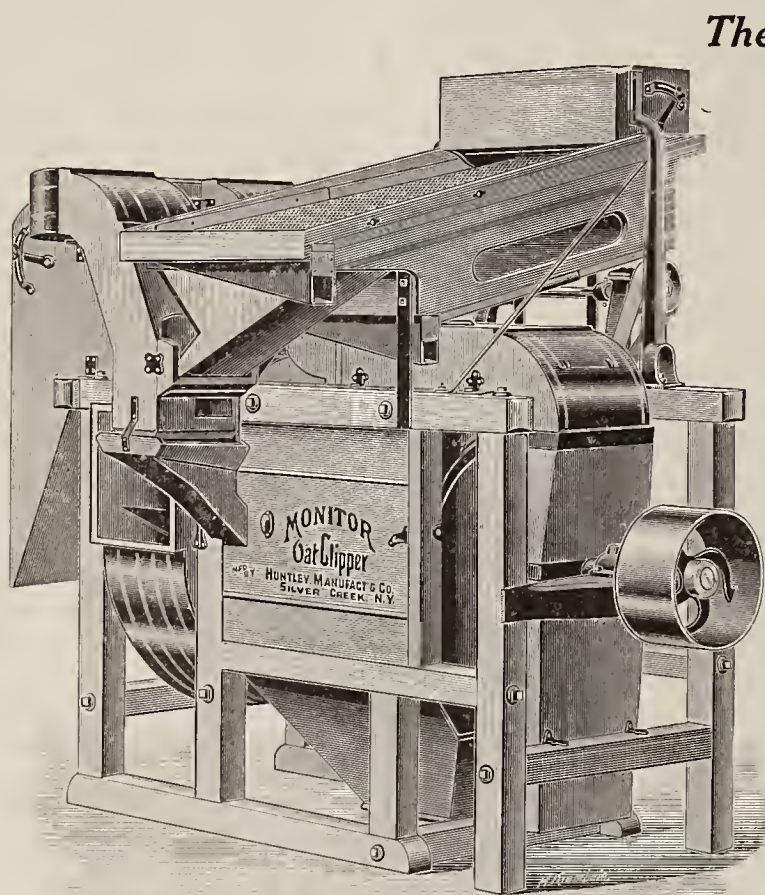
CITY HALL SQUARE BLDG.

Also Peoria, Moline, Quincy

CHICAGO

Clipping Oats or Clipping Profits?

It depends on your Clipper. Some Clippers clip off profits when they are supposed to be clipping oats. The Oat Clipper which, in clipping the oats, increases the profits, is the machine to tie to.



The
Monitor
REGISTERED TRADE-MARK

OAT CLIPPER builds the profits of a grain business in an amazing manner.

Why? Because its percentage of loss through shrinkage is extremely small—its power requirements low and its cost of upkeep small.

It gives you all there is in the operation

The secret is in the perfect air separations and the Monitor design of clipping cylinder.

Better Be Sure Than Sorry—Get a Monitor

Canadian Factory

Huntley Mfg. Co., Ltd.

Tillsonburg, Ont.

Huntley Mfg. Co.

Silver Creek, N. Y.

A monthly journal devoted to the elevator and grain interests.

Official paper of the Grain Dealers' National Association and of the Illinois Grain Dealers' Association.

Established in 1882.



Published on the fifteenth of each month by Mitchell Bros. Publishing Co., 431 So. Dearborn St., Chicago, Ill.

Subscription price, \$1.00 per year.

English and Foreign subscriptions, \$1.75 per year.

Established in 1882.

VOL. XXXVIII

CHICAGO, ILLINOIS, NOVEMBER 15, 1919

NO. 5

New Concrete Storage Tanks for Corn at Argo, Ill.

Corn Products Refining Company Prepares for Enlarging Output of Its Mammoth Plant by Doubling Elevator Capacity

WHEN a plant consumes 75,000 bushels of corn per day, it requires considerable storage facilities to insure a supply. Now 75,000 bushels is a lot of corn. It is the year's product of a 2,000-acre farm, and there are thousands of country houses which consider the mere handling of that amount a very fair year's business. But the plant of the Corn Products Refining Company at Argo, Ill., is planning to use that amount. Up to this time the plant has ground 60,000 bushels a day but its business in Karo Syrup, Mazola, and corn starch has grown to the extent that the capacity of the plant is inadequate and the extensions will be made at once.

To get ready for this expansion the storage facilities of the plant had to be enlarged, and early last year plans were drawn by the engineering department of the company to double the storage and on March 11, 1918, the Leonard Construction Company of Chicago started building and completed the operations on April 26 of this year.

The new unit is practically a duplicate of the old, each having a capacity of 588,000 bushels. This is divided in the new structure between the 20 circular and nine interstice bins. The circular bins are 21 feet 6 inches in diameter on inside measure, and are 101 feet high. The total length of the entire battery is 223 feet 9 inches, and the width is 45 feet. Along the entire length of the unit is a gallery, 14 feet wide, in which there is a 36-inch conveyor belt which operates at a speed of 700 feet per minute and has a capacity of 10,000 bushels per hour. This belt empties into any one of the tanks of the entire two-row battery.

Underneath each row of tanks is a 36-inch conveyor belt, each having a capacity of 15,000 bushels per hour. These conveyor belts are all of rubber.

At the end of the battery of tanks is a turning elevator, equipped with 24x7x7-inch buckets at 16-inch centers on a 26-inch, 6-ply rubber belt. This elevator has a capacity of 8,500 per hour, or enough

to turn over the entire contents of the bins every six days of 10 hours each.

The old and the new units are connected by a cross gallery above and below, leading to the work house. By a simple tripper system, the corn as it is made ready to send to the tanks can be elevated and directed to any one of the old bins or sent across the connecting gallery to the distributing belt above the new unit. In like manner as the new tanks are emptied the grain is carried on the tunnel belt to the cross tunnel and is received in a discharge elevator boot in the workhouse, to be sent to whatever mill needs it.

The power is electric, furnished by the General Electric Company. There are four motors with a total of 140 horsepower in the elevator.

The electric power is generated in the company's own 10,000-horsepower steam plant, which furnished not only power, but hot water and steam to the entire plant.

Rarely in the history of the world has an indus-



NEW CONCRETE TANKS OF THE CORN PRODUCTS REFINING COMPANY AT ARGO, ILL.

try created for its products the demand that has been accorded the syrup and oil of the Corn Products Refining Company, made at its Argo plant. The shortage of fat and sugar brought about by the war was filled to an enormous extent by these products, and the by-products also have been in great demand. The sugar shortage is still with us, as most of us can testify, and without doubt Karo Corn Syrup will enjoy more popularity than ever before.

Argo is about 15 miles south of Chicago on the Chicago & Alton and the Indiana Harbor Belt Line, within the Chicago inspection district. The town sprang up almost over night when the Corn Products Company announced its intention of establishing a plant. The plant furnishes employment to the entire town except for the retail places of business established to take care of the people's wants. It is one of the show places of the Chicago district and is visited by thousands every year. Of course, such visits were impossible during the war, but before that time it was a favorite stamping ground for all who were interested in efficient and mammoth industry. With the enlargement and economies brought about during the war and since, the student of industrial efficiency will find the

wheat is not conclusive evidence that the grain is infested, and may, therefore, be disregarded unless there is some further evidence of infestation.

If, however, but a single live weevil is present in a representative sample of a car, and additional indications of infestation, such a weevil-cut, or weevil-bored kernels, weevil odor or weevil refuse, are discovered, it is the board's opinion that there is clear evidence of infestation, and the grade "sample grade" should be assigned.

Insects injurious to stored grain, other than live weevils, are not considered by the Board of Review as sufficient reason to grade wheat "sample grade," except when found in numbers. Such insects are more often found in oatmeal, cornmeal, prepared wheat products and flour, or other milled products, than in wheat.

SOLVING THE LABOR PROBLEM

BY C. C. ISELY

If the average American business man believes that our present system is the best for everyone, and if he disbelieves in the Socialistic theory of the elimination of profit and the annulment of the

by which the employes are required on leaving our employ, or wishing to dispose of their stock, to offer it to the directors of the company, who have the option to buy it at book value. We sold the stock in the first place at book value. No bonus or speculation values are allowed in stock sales.

In 1918 when Government restrictions prevented us from making any profit, our men, of their own accord, recommended that the wages be not raised until we could see what the year would bring. We had one man in our employ, a former railroad man, who could have been agent operator at \$175 per month, who preferred to stay with us at \$100 per month. We have on our payroll about 50 men.

We have had in use also, a bonus system for about three years, which is paid depending on accomplishing certain things in the management of the point.

Our system is not ideal by a long ways. But there is no worry all the time as to whether the help will leave tomorrow or the next day. Our help is stable. They have a representation on the Board of Directors and know what is going on, and I think is just as tractable as in a company where the boss hires and fires at will. I would not run a job a week by any other method.

The idea of there being continual warfare between capital and labor in any enterprise where there should be complete community of interest is nonsensical. As long as the men are on one side and the owners on the other we can never expect to have anything different. Their stock helps them to become property owners, and every normal, natural man wants to be that.

INCREASED GRAIN MINIMA

Secretary Culbertson of the Illinois Grain Dealers Association on November 4 issued the following special bulletin:

Because there has been what the Railroad Administration operating officials call scandalous light loading of grain and grain products, notwithstanding the greatest crop ever known. Director-General Hines has decided to file increased minima with the Commission, effective on five days' notice. The new minima, according to the Administration's announcement, will be purely for emergency purposes.

Director-General Hines, in announcing the increased grain and grain products minima, said:

"The Railroad Administration is about to file with the Interstate Commerce Commission, effective upon five days' notice, supplements to tariffs providing for the establishment of minimum weights on grain and grain products designed to secure heavier loading and to make available additional freight cars for the transportation of grain and grain products.

"The amended tariffs will provide that the new minima are made effective purely as an emergency matter. When the emergency has passed, the tariffs will be withdrawn.

"This step has been made necessary by the extremely heavy demands which are being made upon the Railroad Administration for the transportation of grain and grain products and by the fact that in many markets cars are being ordered loaded only to the existing minimum weights even though these are considerably less than the capacity of the cars. These minima are not being established for the purpose of securing revenue or as a permanent policy, but solely to assist in providing more freight cars during the present emergency.

"The new minimum weights will be as follows:

"On grain, all kinds, the minimum weight will be the marked capacity of the car, except that where the marked capacity is less than 40,000 pounds the minimum weight will be 40,000 pounds per car. The actual weight will apply when grain is loaded to within 24 inches of the roof at the side walls of the car for the purpose of Federal or state inspection by grain exchange at points where Federal inspection is maintained (notation to that effect being inserted in the bill of lading by shippers) or when grain is loaded to proper grain line of cars so marked.

"On grain products, the minimum weight will be



NEW TANKS AS THEY APPEARED UNDER CONSTRUCTION AT ARGO PLANT

plant of more interest than ever before, for no chance has been overlooked throughout the entire organization to eliminate every waste and simplify operations to the last detail.

Within the last few weeks the Corn Products Refining Company has been required by the Government to dispose of some of its holdings. Several of the plants were sold, and some were of great size too, but the Argo plant is, and will continue to be the magnus opus of the company, so that the new corn storage will probably be used to its full capacity most of the time.

ONE LIVE WEEVIL DOES NOT MAKE WHEAT SAMPLE GRADE

"One live weevil or four 'confused flour,' 'rust red,' or 'imported flour' beetles or so-called bran bugs in a representative sample of wheat, approximately two quarts—that is, representative of the entire carlot—is not enough to warrant grading that parcel of wheat 'sample grade.'" This is the ruling from the Chicago Board of Review, Federal Grain Supervision, United States Department of Agriculture, in response to requests that a definite ruling be made in view of many recent arrivals of wheat containing weevils at Chicago and Kansas City.

In the case of grain in which live weevils are found, the Board believes that one weevil in a representative sample of a car of sound, clean

theory of private property, it is up to him to do something to make his beliefs prove out.

It is not enough to say that the Socialistic theory is false and will bring dire results. Our primary correction is to have more people in the property owning class than there are in the non-property owning class. The I. W. W. says very frankly that just as soon as there are more of him than there are of others, he will take what the others have acquired, and justifies his position by a line of argument that is at least very frank.

Now, in our enterprise before we had been operating a year, we invited the boys working with us to take a little stock. Our concern was small, and there was not much to offer. As we developed we offered the employes an opportunity to buy as much as 10 shares of stock, and we carried them for a part of it, until they could pay.

When we increased our capitalization in 1918 we set aside a certain block of stock to be sold to employes only. As our plans became more developed we would sell only two or three shares on time until that many shares were paid for. This stock was rapidly subscribed, so for two years we have not been able to offer any more, with the result that we have quite a number of employes waiting for an opportunity to buy a few shares.

The first of this next year we plan to increase our capital sufficiently to accommodate all of these and any more that may come in within the next few years. We safeguard our business by a contract

60,000 pounds per car provided that when the marked capacity of the car is less, the marked capacity, but not less than 40,000 pounds per car, will apply, and provided further, that when a car is loaded to full space capacity the actual weight will apply."

A LEADER OF THE NORTHWEST

Until the Pacific Northwest Grain Dealers Association became affiliated with the National a year ago, the trade of that territory was largely a closed book to Eastern and Central dealers. But the



S. C. ARMSTRONG

contact which association has provided has revealed some pretty big figures in the grain trade west of the Rockies, and one of the most prominent is S. C. Armstrong, now serving his second term as director of the National Association.

Mr. Armstrong has had a wide experience in every department of grain handling and merchandising. He went to the North Pacific Coast, then Washington Territory, in 1887, five years later joining the forces of the Pacific Coast Elevator Company as country agent. In 1896 he was made general agent for that company, holding the position until 1909 when he was appointed chief grain inspector for the State of Washington. In 1911 he went with the Globe Grain & Milling Company of Spokane and in 1915 was made president of the Milwaukee Grain Elevator Company of Seattle.

When the Food Administration Grain Corporation was organized, Mr. Armstrong was appointed to the Advisory Committee from the grain trade, and at present is a member of the Advisory Committee, U. S. Grain Corporation.

This year he was elected president of the Pacific Northwest Grain Dealers Association and trustee of the Merchants Exchange of Seattle.

Those who have enjoyed personal acquaintance with Mr. Armstrong have been impressed with the strong personality which has made his administrative work such a marked success. Only the great distance that he lives from the center of activity prevents him from being a dominant force in the affairs of the National Association.

THE WHEAT PRICE IN ENGLAND

British home-grown wheat of the 1919 harvest will be sold to millers at prices that will realize an average of \$2.18 per bushel. The market will be free and each sample of wheat will be purchased on its merits, says the *Agricultural Gazette*, London, for August 25, 1919. Every seller of wheat will have to make the best terms possible, as under the ordinary prewar conditions of a free market. While it is expected that the average price received will be at least \$2.18 per bushel, arrangements have been made to reimburse the producer if it should not.

Thirty Years of Progress

The Long Record of Accomplishment by the Early & Daniel Company of Cincinnati

HERE is an old song, the refrain of which runs something like this:

It isn't the things you do, love,
It's the things you leave undone,
That makes the bitter heartache
At the setting of the sun.

Perhaps that isn't just the wording, but it is the general idea. The poet confined his thought to the affairs of the heart, as is the way of poets, but he said something, just the same, that has a pretty direct application to business. The tragedies of commerce are the old firms which prospered in their day, but neglected to keep up with progress and are now somnolent or in a state of desuetude. The grain trade has its full share, and almost invariably their plight is the result of things left undone.

By contrast there are many grain firms who have measured the passing years by steady growth and expansion. In this fortunate class is the Early & Daniel Company of Cincinnati, which was started by Louis Daniel at Lawrenceburg, Ind., where he peddled feed with a wagon. Later H. Lee Early became his partner and they opened a small warehouse in Lawrenceburg. They had started on the road to progress and they are still going.

In 1883 they went to Cincinnati and took over the old Big Four Hay Warehouse. A few years later they built their first elevator, located at Sixth and Harriett Streets, which was destroyed by fire in 1910. Five years before that, however, they had leased half of the Big Four Elevator, so the business was not crippled by the fire. A few years later they bought the Union Hay & Grain Company's elevator and build the reinforced concrete feed plant which, with the elevator, is shown in the illustration.

In addition to having conducted a very large bulk grain business for a great number of years they have been very successful in the manufac-

density of ordinary hay. This hay was exported to France for use of the army horses and mules. The company has five branch retail feed stores located in Cincinnati, Elizabethtown, Ohio; Aurora, Ind.; Covington and Erlanger, Ky. The main plant here shown keeps the branches supplied.

The elevator is of frame construction, iron clad, with 55 separate bins. It has a receiving capacity of three cars per hour and a shipping capacity of two cars. The equipment consists of one Invincible Warehouse Separator; a Hess Drier of 350-bushels' per hour capacity; power shovels; six hopper scales, six automatic and six dormant scales; and a fire extinguisher sprinkler system.

It is operated by electricity with a supplemental Corliss steam plant of 150 horsepower. Sixteen General Electric Motors furnish the electric power with a total of 370 horsepower. Transmission is by rope, about 3,600 feet being used.

The six-story concrete feed plant is well equipped and has a capacity of 5,000 sacks per day. Experiments are being conducted at all times to perfect balanced rations of different kinds and in every department of the business the firm keeps to its early established principles of pep and progress.

CHANGES IN FORM OF CERTIFICATE IN APPEAL CASES

Offices of Federal grain supervision began on November 1 to issue "Federal Appeal Grade Certificates" in lieu of the old form of "Grade Memorandum" in cases where appeals are taken from the determination of licensed grain inspectors. The Federal appeal grade certificates are issued by grain supervisors as soon as the appeal is filed by any interested party who contests the grade assigned the grain by the licensed inspector. This certificate is ordinarily used in settling controversy as to grade between the buyer and seller. Copies



ELEVATOR AND FEED MILL OF THE EARLY & DANIEL COMPANY

ture of high grade horse and dairy feeds. Their two principle products are Tuxedo Chop for horses, and Ce-re-a-lia Sweets, for dairy, and they are at the present time introducing a hog ration.

The company, which is now incorporated, was originally a partnership between H. Lee Early and L. B. Daniel. Mr. Daniel died five years ago. Mr. Early is the president and administrative head of the company. During the war the company also operated the recompressing plant for the Government at Riverside, Cincinnati, in which ordinary field-baled hay was recompressed to a density of 75 cubic feet per ton, or about three times the

are furnished by the supervisor to all interested parties. Coincident with the change in the form of the appeal grade certificate, the formal findings of the Secretary of Agriculture in appeal cases will be retained with the appeal record and furnished to interested parties only upon request instead of being forwarded to the parties in all cases. The findings of the Secretary of Agriculture reciting the grade determined in the appeal are issued from Washington, and have the value of prima facie evidence as to the true grade of the grain in all United States courts.

The above-mentioned changes in connection with

appeal cases are provided for in Amendment No. 12 to the rules and regulations of the Secretary of Agriculture under the United States Grain Standards Act. The same changes are made effective with regard to the handling of dispute cases as in connection with appeal cases, but in other respects the procedure with regard to appeals and disputes filed under this Act remain as heretofore.

AUTOMATIC SCALES

BY JOSEPH B. SOWA*

If all so-called "Automatic Scales" were truly automatic, there would be no occasion for writing this article. If every user of these scales were aware of the fact that they simply operate automatically but do not weigh automatically, he would be near the solution of his weighing problems.

In making inspections and tests of such scales that are not weighing correctly, we find in a majority of the cases that the trouble lies, not with the scale itself but in the installation or operation.

Although the different makes of automatic scales differ in mechanical construction and arrangement, yet they are all built to do the same work and all operate on the same principle. Therefore any instruction or suggestion in this article will apply to your automatic scale, irrespective of make or capacity.

To be able to operate and adjust your scale intelligently you must be familiar with the working parts of the scale and their functions. You must also understand what takes place during a complete operation of the scale and see wherein the scale does not weigh automatically.

Every scale consists of a frame to support the main lever and the upper or inlet hopper. The center pivots of the lever rest in bearings attached to the frame, the grain hopper and the weight box or weight arm are suspended from the end pivots of this lever. This lever must maintain its equilibrium. That is, if it be an even lever, the weight of the empty grain hopper must equal the weight of the empty weight box. The inlet hopper is provided with a gate which automatically opens when the grain hopper or discharge gate closes after discharging a draft, and closes when there is sufficient grain in the hopper to allow the hopper to travel downward and lift the weights and the weight box.

In operation therefore it is necessary to disturb the equilibrium of the main lever before any automatic action can take place.

When the hopper travels downward the discharge gate is opened and a counter registers the discharge.

All scales are provided with a compensating lever or beam with weight. Some of these levers are blank and can be lifted from the scale to balance the scale empty. Others are graduated, usually with a mark in the center and graduations in opposite directions. The weight or poise must be at the 0 mark when balancing the scale empty.

To operate, see that the weight box and grain hopper are both empty and clean and that all parts attached to either, are clear of any part of the frame. Remove compensating lever, or in case it be attached set the poise at 0.

Clean the center bearings of the main lever and if the lever does not come to a balance position, remove from or add to weight (nails or bolts, etc.) to the weight box. The lever must move freely at a balance position, if it does not, find out where the binding condition exists.

Open inlet gate and feed grain to the scale at the same rate of speed you will feed during the entire loading of a car. Make a complete weighing but do not allow the scale to discharge.

You will observe that when approximately 90 or 95 per cent of the required amount of grain is in the hopper, the inlet gate closes partially and the weighing is finished through a smaller opening or dribble. When the weighing is finished you will find that the hopper is heavy and stands down, which condition exists for the following reasons:

The inlet gate cannot be closed automatically

until the hopper travels downward, since there must be a movement to bring about the automatic action. This movement cannot take place until there is sufficient grain at rest in the hopper to lift the weights in the weight box.

As the inlet gate closes there is a column of grain suspended in the air on its way to the hopper, and it is in this column of grain (called the dribble) which makes the weighing heavy.

The compensating lever is provided to take care of this overage, and when the weight is properly set, the pressure it exerts on the hopper is equal to the weight of the dribble. The adjustment is simple when you have the principle in mind, namely, if the hopper is heavy (stands down) move the compensating weight in the direction of the hopper for the next draft. If the hopper stands up move the weight in the direction of the weight box. Make several test weighings until you have set the weight in such a position that when the weighing is finished the main lever is in balance, the same as when the scale is balanced empty. Since the dribble is virtually measured instead of weighed it is imperative that the measuring of the stream at the time of the cut-off should not vary during the loading of a car.

To insure such condition feed the grain to the scale at such a rate that the grain will accumulate in the upper hopper and insure a full stream when the inlet gate closes down to the dribble position.

Do not allow grain coming from the head spout to strike the inlet gate or brushes, but insert baffle plates or boards in upper hopper. Place these in such a position that they will break the force of the falling grain and insure an even pressure over the dribble opening irrespective of the amount of grain accumulated in the upper hopper.

Build the upper hopper large enough to hold at least two drafts of the scale.

Work scale to its fullest capacity on all kinds of grain, thereby cutting down the number of drafts required to load the car, as much as possible.

Make sure that the hopper brushes are in good condition and that they do not leak grain when the gates are in a closed position.

Keep center bearings clean. They will become jammed with dirt, destroying the sensibility of the main lever.

Take all counter readings from the counter attached directly to the scale. When scales are set in the cupola it is often the practice to use an auxiliary counter placed on the working floor. It is poor practice to use such counter in determining the loaded weight. They are usually connected to the scale with about 40 feet of wire or chain run over several pulleys, and owing to the twisting and settling of the house cannot be kept in order.

When weighing the heavier grain you may find that even after moving the compensating weight to its limit, you cannot exert enough pressure to the hopper to foot the weight of the dribble. If this condition arises, diminish the size of the dribble stream by closing the dribble opening.

When weighing oats or light chaffy grain operate scales with the dribble as wide open as possible.

Do not merely change the adjustment of the compensating weight when changing from one kind of grain to another. Check the adjustment on every car.

Since the loading of a car requires from 250 to 300 drafts of the average scale, you can readily see what it means to be off even one pound on this adjustment.

Examine all spouts and make sure that all grain weighed through the scale reaches the car.

When buying a new scale buy one of large capacity.

CANADA'S CARRY-OVER

The Canadian Bureau of Statistics reports the carry over of the principal grain crops into the new crop year as follows: Wheat, 3,454,000 bushels; barley, 3,345,000 bushels; oats, 19,280,000 bushels; rye, 159,000 bushels; flaxseed, 55,000 bushels. Actual quantities are probably considerably

over the above figures, inasmuch as the latter do not include grain in transit, in country elevators which failed to make returns, in flour mills, and in the hands of retailers. Last year's carry over figures were 3,983,000 bushels for wheat, 1,453,000 bushels for barley, and 14,969,000 bushels for oats. In this country such a small carry over would be considered dangerous.

RUSSIAN GRAIN

A report from the British High Commissioner at Constantinople confirms that South Russia has an exceptionally good harvest this year, and the commissioner describes it as better than any harvest obtained for many years previous to the war. The area under cultivation is said to be at least 80 per cent of normal and the Bolshevik occupation appears to have had no very bad effects, as there is said to be no sign of war or distress; the land is well cultivated and the population well nourished. The High Commissioner naturally expects the good crops will relieve the food situation, provided facilities are given to transport it into industrial areas, but actual transport is wretchedly bad and no steps appear to be taken to organize any system for the collection and distribution.

CROP ACREAGE IN ENGLAND DECREASES

A memorandum just issued by the Board of Agriculture states that the preliminary tabulation of the agricultural returns shows that the total acreage under crops and grass in 1919 in England and Wales amounts to 26,750,000 acres of which 12,319,000 are arable land and 14,440,000 permanent grass, these items showing decreases, as compared with 1918, of about 90,000 and 147,000 acres, respectively.

The acreage under wheat, 2,221,000, shows a decrease of 335,000 acres, or 13 per cent, during the year, but except for 1918, is the largest since 1891. Barley shows a very small increase, but oats have fallen from 2,750,000 acres to little more than 2,500,000 acres, though occupying the second largest area on record. Rye, with a very small increase, is again the largest area of that cereal on record. Beans and peas show increases of 13½ and 9 per cent, respectively.

CONTROL OF WHEAT RUST

During the past four seasons western Canada has had an unusually good chance to become acquainted with wheat rust. There has been some rust in each of these seasons.

The Field Husbandry Department at the Manitoba Agricultural College has been carefully noting those conditions of crop that increase rust infection, and Mr. Ellis, experimentalist, has written a bulletin, "Observations on Rust Control." This bulletin summarizes factors which predisposes to rust as follows:

1. Late maturing varieties.
2. Rankness of growth on summer-fallow.
3. Late seeding and delayed maturity.
4. Seeding too thin on rich soils, resulting in rank growth.
5. Weak seed.
6. Poor seeded bed, uneven depth of seeding and uneven germination.
7. Harrowing growing grain.
8. Excessive and unbalanced manuring.
9. Drifting soil.
10. Poor drainage.
11. Open, uncompacted soils.
12. Soils too poor in fertility to complete the growth produced early in the season.
13. Damp, muggy, humid weather conditions; excessive moisture after grain has headed out or at time of infection.
14. Slow growing seasons.
15. Any factor which retards growth or produces softness or weakness of straw, or delays maturity, is a predisposing factor.

Suggestions are made as to how many of the difficulties may be reduced.

*Third installment of articles by the scale inspector of the Illinois Grain Dealers Association, as it appeared in the monthly bulletin.

The Hazard of Grain Dust

The Government Starts Its Publicity Campaign Against Dust Explosions —
Illustrated Lectures to be Held In All the Principal Markets

IN co-operation with the Grain Corporation, the Department of Agriculture, through the Bureau of Chemistry, is hard after the dust explosion menace in elevators and mills. While the scientific investigations are continuing at Washington and elsewhere under D. J. Price, the engineer in charge of the work, the Bureau is going out to the grain and milling trades with lectures on the subject, given at all the principal markets.

This series of lectures started early this month. On November 4, Dr. H. H. Brown spoke to the assembled grain men of Indianapolis on "Grain Dust Explosions and Losses."

If any members of the Indianapolis trade were skeptical as to whether dust was in reality the cause of some of the disastrous explosions which have taken place in elevators and mills during the past six months, Dr. Brown dispelled all doubts. In addition to giving an illuminating lecture, he displayed two reels of motion pictures, the first showing the Government's experiments at Pittsburgh. Dr. Brown also answered all questions asked by the assembled grain men and this feature of his appearance was really the most instructive of all.

He carries with him a metal container, made in the form of an elevator, about four feet high, four long and two in width. One of his demonstrations is to place a light inside this structure, and then blow a little dust through the "elevator" by means of bellows. The result is an explosion, not a fire, as some dealers expected. The small quantity of dust used and the apparent force of the explosion, sufficient to tear off caps on the miniature elevator, gave the audience some idea of the driving power behind a real dust explosion.

Explosions, Dr. Brown explained, are caused by a certain amount of dust in suspension, mixed with a proper amount of air and a spark. The exact proportions which favor an explosion are somewhat in the nature of guesswork, despite the experiments conducted. The speaker declared, however, that such experiments in actual plants are foolhardy in the extreme, and that the only safe procedure for the elevator or mill owner is to eliminate the dust by means of one of the several systems on the market, nearly all of which have proved to have merit.

The necessity of the presence of a spark to propagate the explosion was used as a cogent argument against smoking around plants. However, sparks may come from other sources. "Even static electricity may be generated," said Dr. Brown, "and the remedy is an improved type of fire fighting apparatus. Explosions and fires of this nature, however, are rare. Still, the fact remains that friction between any two dissimilar bodies will produce static electricity.

"While most of the big explosions which have taken place have been followed by fire, the explosion was the element which did the most damage. However, while preventing explosions, we must not overlook the danger from fire alone. Our work along explosion-prevention lines will be largely wasted, if we loosen up as far as fire prevention is concerned."

The second motion picture given showed the volunteer fire department of one big elevator in action. In less than a minute after the alarm was given, three lines of hose were unreeled and ready to play on the structure.

One of the grain dealers present brought up a point in favor of wood construction of grain elevators, which, however, failed to earn the approval of the expert.

"Why," asked the dealer, "has the wood elevator so common in the country been almost exempt from dust explosions, while the big terminal plants, built of concrete, have been torn to pieces by explosions in several instances? I know of but one explosion in a country elevator in 20 years, that being in a plant in Minnesota."

Dr. Brown's view was that the country elevator

does only a small part of the business handled by the terminal plant, and that there is less dust and less danger of explosion for this reason. He admitted that there usually is more of an outlet for the power brewed in a wood plant than in one of concrete or steel, but on the whole favored the modern elevator, of fireproof construction, rather than one made of wood. A wood house carries other hazards than dust explosion.

"Let it be clearly understood," he explained, "that the only explosion-proof plant is the dust-free plant. This is the crux of the whole matter."

The leading motion picture reel showed close-ups of the grain dust explosions which the Bureau staged at the station near Pittsburgh which the Bureau

the results of these first trials showed that the dusts used produced explosions far more violent than was anticipated.

The apparatus used as a setting for the movie views, the taking of which involved so much unexpected adventure, consists of a steel cylinder or gallery 225 feet in length, set above ground, which serves as a counterpart of a mine gallery. In the upper surface of the cylinder, at stated intervals, are ports, some of which are provided with lids. The progress of an explosion from one end of the cylinder to the other can be detected by jets of smoke and flame that burst from one after another of these vents. The motion pictures secured show this interesting phenomenon clearly. Shelves arranged laterally inside the tube were sprinkled with flour for one of the demonstrations and with a starch dust for another.

One end of the cylinder is open while the other is closed, except for a small aperture against which the mouth of a specially designed so-called "can-



THIS EXPLOSION OF DUST STUNNED THE INVESTIGATORS

of Mines has maintained for the investigation of mine-explosions. The taking of this reel was attended by thrills not often experienced, even by the hardened camera man.

One explosion was so unexpectedly violent that it knocked down spectators standing at supposedly safe distances and practically wrecked the steel and concrete structure, shown in one of the accompanying cuts which had been designed to withstand blasts of this sort.

Nothing so violent and destructive as the detonations which occurred during the dust demonstration

non" is placed. This was used to start the explosion, the setting off of a small charge of gunpowder throwing the dust into suspension and igniting it.

As a preliminary test, the engineers in charge exploded coal dust which made a detonation that seemed violent, indeed, to the novice, but was not considered unusual by the experts present. After the cylinder had been cleaned and "loaded" with flour dust, such as is too prevalent in carelessly operated mills, this second charge was set off. The blast was far more violent than the one preceding it and startled the engineers. However, it was mild



STEEL EXPERIMENTAL GALLERY FOR DUST EXPLOSIONS

were looked for by the engineers present, who frequently had set off charges in the same plant in connection with study of mine-explosions. The experiments offered overwhelming evidence of the terrific force of blasts due to flour and starch dust, and enabled those witnessing them to appreciate more vividly than ever before the penalty that often is exacted for carelessness in allowing dust to accumulate in plants.

Special apparatus was used by the investigators to register the relative violence of the different explosions. While additional research will be necessary to give the data their fullest scientific value,

compared with the third and last explosion, produced by substituting starch dust for the flour dust.

During each of the experiments the motion-picture operator was housed in a portable telephone booth brought to the scene to serve as a shelter and placed with the solid board side of the booth turned toward the mouth of the cylinder. This shelter was set less than 100 feet from the cylinder, and just enough to one side to be out of the direct line of the blast. A hole was cut in the wall of the booth through which the camera was trained on the scene of the explosion.

During each of the first two blasts the operator

was somewhat shaken by the detonation, but the shocks were relatively light and their effects little more than temporary. With the setting off of the starch charge, however, the earth seemed to tremble, the booth rocked on its foundation, and reports received later showed that houses two and three miles away were shaken. The concussion shattered the glass in the walls of the telephone booth. The operator was temporarily blinded and almost stunned, but his long training in his profession kept him turning the crank of his camera even as it swayed to and fro in its shelter. All of this upheaval took but an instant of time. Climbing out from the broken booth the operator looked about and found that some of the engineers, who had stood at a considerable distance to witness the test, had been thrown to the ground. As soon as they recovered their senses and equilibrium they ran to the telephone booth fearing that the operator had been killed.

While no one received serious injuries, the experiment was one which no one is anxious to go through a second time. Examination of the Bureau of Mines' equipment showed that the concrete foundations had been shattered by the violence of the blast and part of the shelves within had been blown out and reduced to kindling, while the target or deflecting screen which stood some distance from the open mouth of the cylinder, had been partly torn from its deeply laid foundations. Motion-picture men state that in the whole history of the industry, few movie views of this sort have been taken under such hazardous circumstances.

"Any kind of dust in suspension makes for an explosion, the amount of air and the spark being provided," explained Dr. Brown after the showing of this film. "You are familiar with coal dust, which has caused some of the most terrible catastrophes of the decade. Even wood dust is explosive, and one of our most costly explosions was in a plant where cork was being ground for the manufacture of linoleum. Forget the theory that it requires a certain kind of dust to explode."

Ordinary carbon electric lamps are frequent causes of explosions, the speaker stated. He recommended the use of vaporproof guards for electric lamps.

"Plants which have installed every modern device for the prevention of accidents have found that they pay for themselves," he asserted. "No grain man need hold back because of the expense. Better working conditions and the satisfaction of employees usually bear a very definite harvest in improved production."

"Even could the value of human life be measured in dollars and cents, there would still remain good reasons why safety devices should be employed in elevators and all other plants where dust is a danger."

"The dust, when properly handled, is not a dead loss. Even where the value of the grain is somewhat lessened because of the loss of this dust, the decrease is usually more than made up by the use of the dust in concentrated cattle foods. There is no good argument against the employment of safety devices, and scores in their favor. Every consideration urges the owner of the grain elevator and the flour mill to do away with dust and the ever-present danger of an explosion which will in a few seconds nullify the work of a lifetime."

Further lectures have been delivered at Boston, Columbus, St. Louis, Cedar Rapids, Chicago, Milwaukee, Minneapolis and Duluth. On November 18 and 19 the lecture will be given at Omaha, and on November 21 at Fargo, N. D.

It is to be regretted that through error the 1919 appropriation for the work is a mere \$8,000, instead of the \$90,000 available in 1918. While, as indicated, this decrease was due to a clerk's error, Dr. Brown has intimated in his lectures that if the grain trade really wanted to help, it could do so by advising its representatives in Congress of its attitude, so that the men at Washington could help put the 1920 appropriation over with intelligence.

Following up its former literature along this line, the Bureau has issued this month a 6-page folder entitled: "Four Reasons Why You Should

Be Careful." The four reasons are displayed pictorially, showing Loss of Property, Loss of Life, Loss of Food and Loss of Job, in the ruin and wreckage of an elevator or mill.

The lesson of the four reasons is followed by some brief directions, "How to be Careful." The reader is told to look over the elevators and conveyors often, to report at once any rubbing, slipping, friction or other trouble, no matter how

slight, and finally to observe the following injunctions:

Never smoke in or near the mill or elevator.

Never strike a match anywhere on the premises.

Never use open flames, torches, candles, lanterns, or unprotected light bulbs in dusty air or when examining bins or elevator legs.

Never let dust accumulate on beams, machines, pulleys or floors.

Informal Notes of an Elevator Pilgrimage

No. 20—The Hoosac Elevator at Boston

By JAMES F. HOBART

IT'S easy to get to Boston. Almost any railroad in New England will take you there. Just get into a car and you'll be in Boston, safe and sound before many hours. And all trains stop at Boston too, despite the doubts of an old lady who was one day riding on a Fitchburg Railroad train, and pestered the conductor, every time he passed her, "if this train surely would stop at Boston!"

Finally, the conductor, wearied by her importunities replied: "By Judas, mam, if it don't stop there, we'll have the biggest smash on record!"

Long years ago, there used to be three railroads entering Boston from the North: The Fitchburg, or "Hoosac Tunnel Line," the Boston and Maine,



SHE WANTED TO GO TO BOSTON

and the Eastern. Now, there is but one road, known as the Boston and Maine, and the other roads are divisions thereof.

The Fitchburg road erected in Charlestown a 1,000,000-bushel elevator and one of the other roads had an elevator of about one-half that capacity at Mystic Wharf, almost up to Chelsea Bridge and to this day, these two elevators are known as the "Mystic," and the "Hoosac." In addition to these, Boston has another and modern elevator at East Boston, operated by the Boston and Albany Railroad, of which, more in another story. But all three of these elevators handle ocean shipments almost exclusively, and at this writing, October 24, they are practically idle and three-quarters full of grain. They have nothing to do because of the strike in England which has tied up all the ocean grain-carrying vessels!

Built expressly for handling foreign-bound shipments of western grain via the Hoosac Tunnel, the elevator of this name is located in the heart of Charlestown, Mass., just beside Warren Bridge, and close to the Navy Yard. The elevator, with its 3,300 feet of galleries commands vessel loading facilities on four piers, Nos. 40, 41, 42, and 43. Twenty years ago the original Hoosac Elevator was destroyed by fire and by a dust explosion, and this fact was brought vividly to mind by a lecture at the Chamber of Commerce, on the day of my visit. The subject of the meeting was "Grain Dust Explosions," the speaker being Dr. H. H. Brown of the U. S. Department of Agriculture.

The destruction of the original Hoosac Elevator was so complete that it was rebuilt entirely and upon a more liberal plan, steel and tile construction being used, with an exterior veneer of brick, no wood being used save for the storage bins which were constructed of the then usual "cob-house" of 2-inch planking, spiked solidly together.

Steel elevator legs and spouts and steel framing, together with non-burnable floors make this elevator practically fire proof save for the storage bins.

The sheds and galleries to an aggregate length of nearly two-thirds of a mile are fire-protected by a dry automatic sprinkler system, in connection with which, there is placed just outside of the elevator office, a large receiver full of compressed air, which in addition to serving the system, also operates, in case of need, a very vigorous fire alarm whistle.

Three tracks enter the elevator and unloading or receiving can be done along all three of them. Usually, however, only two tracks are used for receiving grain. The third track, being along the shipping-out side of the elevator, is, while fully equipped for receiving grain, not as convenient for that purpose because of the proximity of the shipping-out elevators and the consequent trouble in taking care of grain received into the dumps along the third track. Still, when grain is not being shipped, the third track can be used for unloading, equally well as the other two.

Six unloading sinks are located along each track. Between the tracks most used, an elevator takes grain from each sink. Thus it is possible to spot 18 cars at the same time for unloading. A track just outside of the elevator may be used for loading cars, but this is very seldom done at the Hoosac Elevator as the business is almost entirely that of holding grain and loading vessels for foreign shipment. Occasionally a car is loaded for some small local shipment, but this is the exception rather than the rule.

I took a surface car at Tremont and Dartmouth Streets, was whisked into the subway, transferred to another car while therein, and first I knew, was being hustled out of the subway right past the old Fitchburg Railroad Station.

At the elevator street-gate, a guard very quietly and firmly insisted that my business was wholly and entirely at the railroad office nearby, and not in the elevator. I went to the office, for things were not too quiet in Boston, even then. One could not move without running against a soldier with rifle or automatic; for Boston was still under martial government owing to the recent strike of the policemen—and the rough-house of the lawless.

It required but a very few minutes to locate genial S. P. Wood, who has operating charge of the Hoosac Elevator. A very few minutes more secured the writer a welcome and a hearty greeting, and into the elevator house we went, and the very first thing noticed was a very good and convenient arrangement above each sink grating. It was a sort of platform, composed entirely of round steel rods. Steps leading to the platform were each made of three of the rods so that no grain could ever find lodgment upon either platform or steps.

The platform was arranged just high enough to bring the workman, when standing thereupon, into a position where he could open freight car doors and remove grain doors to the best advantage. To either end of the little platform was attached a sheave for the unloading-shovel cable or rope. Stiff steel angles served to support both platform and sheaves and by more angles, both were stiffly braced to the supporting steel columns of the elevator building, each sink and its platform being centrally located between two of the posts or columns in question. Thus each unloading elevator leg had two platforms, one upon each side, and all well lo-

cated between the two principal unloading tracks.

Twelve of the large "cob-house" bins are cut in two by the elevator legs which pass up through the bins in question and some of them are further divided into four small quarter-bins for convenience in handling small lots of grain. Some of the large bins are so arranged that grain for shipment may be weighed into them and then spouted direct to at least two of the conveyor belts which each run for 600 feet down the length of the piers. This may be done in addition to the weighing-out and loading in the usual manner by means of the shipping legs, transfer conveyor and the gallery cross-conveyor. In this way, three ships may be loaded at the same time.

A long gallery at the end of two of the piers permits of a vessel at that point being served with 24,000 bushels of grain per hour. At other points of the gallery service, ships receive 12,000 bushels per hour, which is the capacity of each gallery conveyor. Only three of the four galleries are in commission at the present time. One pier was leased a few years ago to the Savannah Steamship Line, and the elevator in the gallery over and along that pier has been dismantled. But it is a very open guess that the railroad people have many times wished they had that pier back again.

Getting one's self to the top of the Hoosac Elevator is a pleasant bit of procedure. No need of climbing stairs or of clinging like a one-legged woodpecker to a step upon an upward moving man-elevator. Instead, one has only to enter the little cage of an all steel elevator and stand there comfortably while going from ground floor to the very top of the building. The little elevator cage has a sliding steel door, and another similar door closes the entrance to the tile-lined elevator shaft.

The little elevator is electrically driven by an independent motor which cannot be prevailed upon to start the cage upward or downward until both the door to the cage and that to the elevator will have both been fully closed and locked. Then, the little elevator responds to the usual pull upon the starting cable, and away goes the cage.

In the bin-floor, there is a height of room which permits grain being spouted from either transfer belt into every transverse opening to the bins, save the one farthestmost opening upon the far side of the building. Thus each receiving elevator in the building can send grain with but a single transfer, into each and every bin in the house save the ones along the opposite side of the building.

A very peculiar power arrangement is in use in this elevator, which is entirely electrically driven, six A. C. 150-horsepower motors and as many fine rope drives, taking care of all the machinery in the structure, including the belts in the galleries. Originally, the machinery was all driven by engine-power, and the power-house is still in evidence, the boilers being retained and some of them—all vertical—being used for heating and for drying grain when necessary, but the engine has been removed.

When the motors displaced engine power, the entire outfit of machinery was divided into six groups and as stated, a 150-horsepower motor was attached to each group. All the motors are located overhead, above the bin floor, and the starting mechanism all stands upon that floor, the entire machinery in the elevator being controlled from the bin floor, even the belts in the distributing galleries along the docks, hundreds of feet away.

The arrangement of motors and rope drives is such that each motor drives one receiving and one shipping elevator leg, also one of the dock conveyors. Thus, when driving only the distributing belts, it is necessary to drive two or more of the elevator legs as well. Rather a power consuming arrangement it seemed to me, which a few friction clutches would quickly cure and, incidentally, save one-half the power at present used.

While the elevator is well equipped with both cleaning and drying machinery I saw very little evidence of it being in use, especially the latter. It is evidently pretty hard to make a railroad believe that anything which came in its grain cars, should not be shipped along as it is, thus passing the buck very effectively as far as dust is concerned. Evidently very little dust gets away in this ele-

vator, which was clean and in most excellent shape. It was given me to understand that the inspectors give this elevator the glad hand as being much cleaner than some others which they visit. The tight fit between spouts and bin-floor openings lets very little dust get away at that point!

During the last year of the war, Governmental work usually came along in such a manner that much of the grain shipped was sent directly from cars to vessel, without ever passing into a storage bin. This left the elevator's storage capacity idle, and as several grain dealers were clamoring for storage space, the matter was put up to the powers



BOSTON UNDER MARTIAL LAW

that be controlling the elevator, and its manager was told that he might "use his judgment" about accepting grain for private storage.

"I let one man put in some grain," he said, "and I believe he must have told everybody else, for they all wanted to come in. As there was very little grain in the bins, and all seemed going right into ships as fast as it came, I let in some more of them and pretty soon, I had quite a lot of grain, much of it corn, in storage 'for 30 days.' But, bless you, some of those fellows never got their grain out for 90 days, and then I had to pry it out with threats to sell for their accounts if they did not order their grain out. The Grain Commission gives an elevator that right, you know, and grain can be sold, whether or no, after it has been stored for more than 30 days.

"When there was quite a lot of grain thus stored in the elevator, word came down the line to make ready for 2,000,000 bushels of oats which had just



DOING SOME CLOSE FIGURING

been purchased in a lump, and which would begin to arrive at the elevator inside of a week. Then the fun commenced, and I had a great time clearing out the grain those Yankees had wished upon me. A lot of it was corn, too. I don't like corn. It musses things up so. Give me wheat and oats, then we don't have to be cleaning out bins as often as when corn must follow oats or wheat.

"But when those fellows got their corn in storage, we had to keep watch of it of course, and when a bin began to heat, we would send word to the owner of the grain and ask him what he wanted done with it? Sometimes an order would come to ship the grain at once, and that order was very pleasing to us. But occasionally a corn-owner would write in for us to 'just touch up the corn

with the dryer a little bit. I don't want to lose anything on this corn by shrinkage, so don't reduce the moisture more than one-half or one per cent.

"Well, we would run the corn through the dryer—at 2½ cents per bushel—then send it back to a bin again and charge the owner \$25 per 1,000 bushels for the service. Once or twice, the owners over-reached themselves. Not letting us dry the grain enough to make it keep, it would soon start aging again, and another \$25 trip through the dryer would have to be made, to the great disgust of the owner of the grain in question."

Running a railroad elevator is not a soft job by any means, and in the matter of up-keep, there are apt to be some pretty close bits of figuring in order to get the necessary supplies and material. "Absolutely nothing new shall be purchased or installed" is the iron-clad order which has been passed along the line and when, one day, the millwright sent in his report for time and material after putting a new gallery belt in place of a worn out one, back came the report for rewriting. The millwright had reported the matter as: "Installing new conveyor belt," but that report did not get by. Back it came with instructions to enter the details under head of "Replacing old belt." It would have been funny, if it had not seemed almost pathetic, the horror of a railroad director of finding an item for *anything* new entered up in the expenditures for his road.

Grain weighing in the Hoosac Elevator is done by 100,000-pound hopper scales, six of which are set for weighing in up-stairs, together with six more for weighing out. The "in" scales all face in the same direction, while all the "out" scales must be operated from the opposite side. A steel garner of same capacity is located with each scale. But, as large as these units are, it is found necessary to divide many of the big loads which now come on some of the cars. Loads of 125,000 pounds and even more sometimes come in the big cars in use nowadays and the elevator people find their once large equipment rapidly becoming far too small and too light.

Signalling between bin floor motor-control and the grain dumps is by means of red light signals. The elevator office and blackboard are located on the bin floor where warm and snug quarters have been provided for the elevator foreman. When the grain unloaders want a leg started, they signal to the bin floor by phone or by tube and the attendant there starts the proper motor.

As soon as the motor has been brought up to speed and is ready for work, the attendant turns a snap switch which lights two red incandescent lamps, one at the motor control on bin floor, the other red lamp at the elevator leg on main floor. When this lamp glows red, the shovel-man knows the elevator is ready and begins dropping grain into the hopper or sink.

Upstairs, the red light continues to glow as long as work is being done. When the car is empty, all the grain has been sent up and the sink has been cleaned out, the workman turns a snap switch on his floor and the red light is extinguished, as also is the other red lamp on the bin floor. When this light goes out, the attendant knows the elevator is not needed any longer and stops its motor. Thus the signals are always visible and "fail on the side of safety," for, as Pat said about the 1500-foot push-rod used in mines for giving signals at the different levels: "You can see it when it don't work," which can't always be done when a bell or a telephone is depended upon to give signals.

The bin blackboard is in the foreman's office at the top of the house and the use of colored chalk, one for each kind of grain made unnecessary the writing of "wheat," "oats," "rye," etc., many times upon the blackboard. The use of colors showed the disposal of the various grains in much less time and with far less eye work, than would be required to search the board for the names of various grains. A duplicate of the blackboard, but a smaller and "real purty" one, located in Mr. Wood's office, was kept, by constant revision, to agree with the foreman's board and with the contents of the storage bins.

America Sows Grain In Europe

Work of the Red Cross in Aiding the Mutilated Soldiers
and the Poverty-Stricken People of Europe

JASON, most progressive planter of mythological times, sowed dragon's teeth and reaped a harvest of armed men. Today France, Italy, Poland, The Balkans, are reaping crops of grain from seeds provided by the American Red Cross in these devastated countries.

The devastated area in France covers approximately 6,000 square miles in all, about 2 per cent of the country, with a total population of nearly 2,000,000 people. So stupendous is the destruction in this region that no one can begin to realize what it means. It is estimated that 250,000 acres were

Traction Service, plowed land wherever possible. The Friends' Unit did threshing in the country barns about Sermaize and put together the tractors and plows when these machines arrived from America.

But assisting in reclaiming the land is only one phase of the work being done toward making this country a productive nation once more. The farmers themselves have suffered the ravages of war as deeply as their possessions, many of them returning from the hospitals in a helpless state. The American Red Cross conducted a school for the re-



RED CROSS SCHOOL FOR WOUNDED AT RENNES

rendered uncultivable by the war. The loss in wheat amounts to about 1,300,000 acres and hay to about 850,000. The total damage to the soil, livestock, crops, forest, tools, etc., is estimated at \$2,000,000,000.

The general policy of the Bureau of Reconstruction and Relief of the Red Cross was to promote the production of foodstuffs. A special grant of

education of French *mutilés* at Rennes, France, where these brave poilus were taught to wield a scythe, drive a tractor, sow and reap, aided by the special apparatus invented for various activities. At the end of the term, a competition was held and prizes awarded, often the maimed contestant winning over his "whole" competitor.

France, however, is not the only nation that has



GERMAN PRISONERS AND FRENCH OVERSEAS SOWING WHEAT

money was made to the American Fund for French Wounded at Blerancourt, in the Department of the Aisne, for a farm of 100 acres to cultivate grain and for grazing. As the Germans in their retreat systematically destroyed all machinery, Col. Harvey D. Gibson, Red Cross Commissioner to France, authorized the expenditure of 87,000 francs on farm machinery to harvest the crops in the Aisne, at the request of the Ministry of Agriculture.

Also, through its distributing centers over the whole of fighting France, this organization was able to supply material and livestock, and through its

felt the searing touch of war. Belgium has suffered at least \$2,000,000,000 worth of destruction in all and there are \$2,000,000,000 worth of thefts made and taxes imposed on the communities by Germany. A king has crossed the Atlantic to thank the American people for their work in his little country.

Southern Serbia has commenced to harvest her first crop since 1916. It is expected the food derived therefrom will be an important factor in alleviating the suffering which has held mountain sections of the country in its grasp since the armistice. The

crop consists mostly of wheat and maize. The grain was sown last spring, much of it under direction of the American Red Cross which brought from the United States 10,000 sacks of seed for the purpose.

Agricultural machinery to cultivate the fields for the next crops has been distributed throughout the country by the Red Cross, including a number of powerful tractors. The typical Serbian farm is of but a few acres, and not adapted to cultivation by tractors; in order to take advantage of these labor-saving power-plows, the peasants in many villages have thrown their little farms together, forming continuous tracts of large extent.

The thing Greece needed most for its fields that were exhausted from centuries of use, was scientific soil culture. Major Hopkins, who is a scientific agriculturist from the University of Illinois, was sent to this impoverished country by the American Red Cross to teach the peasant farmer modern agriculture. He is now known as the "Miracle Man," for he demonstrated his methods with two plots of sour ground side by side, planting both with the same seed, but using limestone and phosphates on one and none on the other. The "sweetened" and fertilized plot in some cases produced 30 times as large a crop as the other.

So this fall, thousands and thousands of acres of soil in Greece is planted in sweet clover, as the "Miracle Man" has taught the Greek farmer that a simple way to make the soil productive again is to plant it in sweet clover, and then plow the clover under, either before or after the cattle have been on it. They are watching for the miracle that the American college professor predicted.

The poorest and most backward country in Europe today, is Albania, but its feeling of nationality is as strong as that in any other Balkan country and its people's confidence in a bright future is unbounded. Albania is naturally a rich country, and she hopes during the next decade to become one of the garden spots of southeastern Europe. There is an abundance of water, a fine climate, a fertile soil, foothills ideal for stock-raising and valleys unsurpassed for grains. The American Red Cross has confined its activities here to putting the people in better physical condition for their future work. Medical and emergency relief and educational propaganda which aims to teach the peasants the elementary principles of hygiene and sanitation are doing much to lift this beaten but unsubdued province from the mire of treachery, war and pillage.

Seeds supplied by the American Red Cross are even bringing forth crops in Jerusalem, for to show the old-world people of Palestine how an up-to-date plant is run, a model farm of 1,000 acres has been operated here by the American Red Cross since last winter. People of the district, after visiting and inspecting the model farm, and learning as much as they could absorb of modern agricultural methods, were permitted to apply to a special bureau for aid. Oxen and mules were loaned to needy farmers, and in many instances seed was furnished for the next sowing. Similar work has been undertaken by Americans in other countries of the Near East with great success.

A school of farming conducted by the Silesian Fathers, just outside the Porta Furba, one of the historic gateways of Rome, has been opened under the management of the American Red Cross, and an Italian organization known as the *Comitato per gli Orfani de Costadini Morti in Guerra*. Orphan sons of peasant soldiers are given training here, both practical and theoretical, by the younger Fathers, who work side by side in the fields with the boys.

In thousands of villages throughout Poland, people are returning from exile in Russia, ragged and starving, with no food supplies available for the coming winter, owing to the fact that no grain or foodstuffs have been planted this year in the region of their devastated homes. The American Red Cross has sent relief expeditions to this tragic country, and with its doctors, nurses, food kitchens and distribution centers is helping to relieve the terrible conditions wrought by starvation, disease and extreme poverty.

In Russian Poland hunger is more than a prob-

lem of the present. Because a large part of the farming population is still suffering from under-nutrition and therefore unable to work on a 100 per cent basis, there is every indication that much of the grain now ripening in this community will go unharvested, and the little that the country has produced this summer will go to waste. Food bought from the American Relief Administration by the Polish Government is being distributed at places of greatest need by the American Red Cross Commission to Poland, which has one of its field units here. But the starvation conditions are only lessened. They cannot be eliminated in a day.

So the Red Cross "sower went forth to sow." Some of the seeds fell in the trenches of France, some on the mountain sides of the Balkans, some on the wind-swept plains of Siberia, but all have brought forth a harvest of friendship for the people who journeyed so far to help. This is where part of your dollar went.

CROP PROSPECT IN EUROPE

Crop prospects in eastern Europe are much better than previous official reports and unauthentic rumors have indicated, according to a representative of the United States Department of Agriculture, whose observations were taken into account in the Department's recent suggestions for fall plantings in America. This representative, under direction of the United States Grain Corporation, made extensive first-hand investigations in Europe. One of his reports was that the territory included before the war in Hungary, Bulgaria, and Roumania probably will export at least 1,650,000 tons of bread grains from current crops compared to 3,900,000 tons in average pre-war years.

So far as its production of bread grains is concerned Bulgaria is practically on a pre-war basis and Hungary almost so, but Roumania is still most optimistic; claims of Roumania for export this year are 500,000 tons as against 1,700,000 tons of pre-war years. In the wheat-producing region of southern Hungary the average planted this year is fully 90 per cent of the normal pre-war acreage. In that part of Roumania occupied by the armies of the Central Powers, considerable land was not cultivated this year, while that which was devoted to crops was found in rather poor condition. This came about because the Teutonic armies ravaged the country of much of the work stock and agricultural implements. However, despite this, Roumania will be more than self-supporting, and as the maize crop is improving on account of conditions during the summer, Roumania will have a certain amount of export surplus. There will undoubtedly be an export surplus from southern Hungary, while Bulgaria, as stated, is at least as well off in food production as it was previous to the war and will be able to export more than the average amount of cereals.

On the Eastern border of Poland and the Western border of Russia the population was largely evacuated during the war. At present, however, the peasants are returning to their former homes despite the fact that food conditions, due to lack of cultivation, are very bad. In some places the peasants are living on bread made from grass, nettle, and heather. Food shortages in eastern Europe for the most part are local. Wheat bread is common in all the markets, except those of Germany, where white bread is not available. Throughout Germany the entire acreage is under cultivation, although it is presumed that the yield will be below normal, due to the lack of fertilizers. Belgium is very highly cultivated with good crop prospects, while France and England have both been seriously affected by drouth and their prospects in bread grains are not encouraging. East Galicia has been for five years the stage of fighting. As a consequence of the disturbed conditions there, none of the large estates of that region are cultivated this year, although fully 90 per cent of the peasant holdings are in crop.

Specialists of the United States Department of Agriculture spent seven weeks in travel through southern France, northern Italy, across Jugo-Slavia,

through Croatia and Slavonia, the great wheat districts of southern Hungary, and Transylvania to Bucharest in Roumania and north through Roumania, Bukowina, and Galicia, to Warsaw in Poland; thence west through Germany to Holland; through Holland, Belgium and northern France to Paris. During this tour opportunity was afforded to examine the agricultural situation in the region traversed.

BOOSTING THE MISSISSIPPI

It is not easy for shippers, particularly the old timers who witnessed the decline of river navigation, to place confidence in the Mississippi barge lines. They want to be shown. But there are some dealers who have caught the possibilities of water

makes an important and essential consideration. Another thing is to make bills of lading as easy to handle, including the insurance item, as are the railroad bills. Dealers dislike to make experiments in these matters and will pay the higher rail rates rather than go to unaccustomed methods of the operation of which they are not fully conversant.

Another factor of supreme importance is to see that all ports on the river are thoroughly equipped with mechanical handling devices, for one manual handling cuts out whatever rate advantage there might be. Until this is done, shipments will be confined largely to export grain and commodities. The greater part of the St. Louis grain shipments have gone for export and are unloaded at New Orleans by the efficient Dock Commission Elevator there. While the approaching winter season will witness a diminution in river traffic, there is every



BARGE AT LOW WATER RECEIVING GRAIN AT BURLINGTON ELEVATOR

traffic and are pioneering under the new conditions. Incidentally they are finding the barge shipments of grain are profitable and are taking off a lot of cream, before the scramble for barge space sets in.

Of all river points St. Louis has made most use of the new Government 2,000-ton barges. Not only have thousands of tons of grain gone to New Orleans and intermediate points from St. Louis, but the city has just completed a \$1,000,000-dock for

reason to believe that it will open next spring with redoubled vigor.

One of the illustrations shows a full length view of a Government barge receiving a cargo at Central Elevator "B." The size of the barge is indicated by comparison with the men standing on the bank. The other illustration shows a barge at the Burlington Elevator, also at St. Louis, taking on grain at low water. This accounts for the height



LOADING GRAIN AT CENTRAL ELEVATOR "B," ST. LOUIS

package freight, with complete equipment of mechanical loading and unloading machinery. This business is confidently expected to reach large proportions, in fact already more business is offered than can be accommodated by the equipment available. The problem of return loads seems to have been effectually solved, as coffee and other South and Central American products are carried up stream with entire success.

There are some points, however, which the river boosters must take care of before the entire confidence of the trade can be gained. The first of these points is, of course, the matter of rates. These must be favorable enough to take care of insurance, which the exigencies of river traffic

of the spouts above the hatchways. The level of the river varies at different seasons, but at no time has it interfered with rapid and economical loading.

REPORTS from Greece indicate that for early cereals the prospects are in general only for a 60 per cent yield this year in comparison with that of last year. For late maturing crops the prospects are better, nevertheless an inferior wheat crop to that of last year is predicted from the plains on Thessaly and Macedonia. Only half of the yield of last year is expected from the districts of Lassithion and Rethymno in Crete, and in Chios and Jannia.



Published on the Fifteenth of Each Month
BY

Mitchell Brothers Publishing Co.

OFFICE:

Manhattan Building, 431 South Dearborn St.
CHICAGO, ILL.

A. J. MITCHELL.....Business Manager

Subscription Price - - - - \$1.00 per Year
English and Foreign Subscription 1.75 " "

ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching persons connected with this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

Official Paper of the Grain Dealers' National Association and of the Illinois Grain Dealers' Association.

CHICAGO, ILL., NOVEMBER 15, 1919

BY THEIR WORKS YE SHALL KNOW THEM

THE Bureau of Markets disclaims any determined policy for encouraging the formation of co-operative agencies through its county agents or by other means, but the certain effect of a recent movement requires no Sherlock Holmes to see through. What do you make of this, Watson?

Accounting systems for marketing organizations, prepared by the Bureau of Markets, United States Department of Agriculture, are to form the basis of courses in marketing accounting at 26 colleges next year. These accounting systems have been prepared for use in country grain elevators and creameries. Their value has been demonstrated by 800 actual installations.

Although at present the text material is confined to work in creameries and country grain elevators, the Bureau of Markets has worked out systems for other lines including co-operative fruit organizations, co-operative stores, livestock shipping associations and cotton warehouses. Bulletins on accounting systems for commission houses, cold-storage warehouses and milk-distributing plants are being prepared.

We would be the last to object to the Department helping the accounting systems of co-operative societies where they are formed, but it is no function of a Government bureau to organize trade agencies to compete with individuals already established in business. We can scarcely believe that the above courses will be given in any college without pressing encouragement of the co-operative system, often without regard to the needs of a community. College students have more enthusiasm than judgment, and they would naturally want to put their newly acquired theories to trial at once, and would not weigh the evidence to see if a co-operative organization were needed. That it is needed in

some communities no one denies, but an unfledged college graduate is scarcely the one to judge of that. We trust that the college courses in accounting will be completely divorced from any suggestion of propaganda.

A CURE FOR DISCONTENT

INDUSTRIAL unrest is too widespread and insistent to be dismissed with the grunt of disgust or the fiery expletive which is the plan too many employers have adopted. No doubt, a part of the world's disquiet is due to mass psychology, growing out of the war and the conditions it brought about. But, as no mass movement starts without some definite cause, it is absolutely necessary that employers study that cause and find the remedy.

The cure for this growing and dangerous discontent is not merely more wages. Everyone needs and most people are getting more money than they ever got before. Excessive wages aggravate the industrial disease; but it is not alone wages that will satisfy labor. It is understanding.

On another page C. C. Isely of Dodge City, Kan., who made such a favorable impression at the National Association meeting at St. Louis, outlines the plan by which his firm has enlisted the co-operation of the employees, and has effectually solved the labor problem for itself. This is the only way it can be done; by the effort of individual firms. The solution does not rest with legislators nor with theorists, it rests with every employer operating with his own force of helpers. If all should do this, labor troubles would cease.

We ask a careful reading of Mr. Isely's article, and would be glad to have comment upon it, and the experience of others who have found a solution to their own labor troubles.

MUTUAL CONFIDENCE

ADDRESSING the Senate Committee on Agriculture on the subject of the relinquishing of control by the Grain Corporation, Mr. Barnes concluded by saying: "If there is to be full co-operation leading to effective action, there must be mutual confidence."

It is unfortunate, but true, that there is far too little mutual confidence in the grain trade itself, to say nothing of the wheat growers and the consumers. Progress is being made gradually, thanks largely to the educational efforts of the Grain Dealers National Association, so that shippers have far greater trust in the integrity of receivers than they used to have. They are coming to realize that no business which is not honestly and fairly conducted can prosper in the face of keenest competition. Moreover, they know more about operating costs than they did before, and this has explained some things they did not understand.

But the schism between the farmer and the grain dealer is apparently as wide as ever before, and the rebate enforcements by the Grain Corporation have not helped any. Congressmen, desiring the farmers' vote, are too

prone to exaggeration; demagogues play up their grievances till they seem mountainous indeed; county agents add their mite with their merchandising suggestions, so, taking it all in all, the farmer is pretty well satisfied that the grain dealer is out for the sole purpose of skinning him alive, forcing the price of grain down to the vanishing point of profit.

The public, on the other hand, are taught by sensational newspaper stories, to regard a grain exchange as a glorified Monte Carlo. They tell of fortunes lost or won, but never suggest an economic function which the exchange performs. High prices are always due to the speculator; when prices are low they forget the exchange entirely. Nor is the public without shrewd suspicion at present that the farmer is one of the greatest of war profiteers, in spite of his indignant protest to the contrary.

So, if Mr. Barnes is to get the full co-operation of which he dreams there will have to be a very marked change in the public mind, for at present "mutual confidence" is a long way from being realized.

THE FARMERS TO THE FORE

OUR agricultural friends have never been averse to criticizing the Government of this and other countries. From the cracker box conference of the country store to the rotunda of the National Capitol itself, farmers have been free to express themselves, and it is our observation that they are usually dissatisfied with the course of legislature, particularly as it affects their interests.

But now we can have a demonstration of a farmers' rule. At the recent election in Ontario, United Farmers elected 45 representatives; Liberals, 28; Conservatives, 25; Labor, 11; and Independent, 2. It will fall to the United Farmers to form the Government, although they will have to command the support of Labor and Independents to make the majority. They do not pull very well with Laborites and not at all with the Conservatives or the Liberal party, so the outcome will be rather interesting to watch. It is to be hoped that the farmers try no experiments, as they are doing in North Dakota, for Ontario is a manufacturing province and the application of Socialist theories would be fatal to their prosperity.

WHEAT EMBARGO INVESTIGATION

SENATOR GRONNA of North Dakota is determined to find out, through senatorial investigation, how the embargoes on wheat and flour are "manipulated." The Senator is convinced that raising the embargo will increase prices for wheat and flour, and he wants it done now so that the farmers will get the benefit of it, whereas, according to the Senator, if the action is delayed all the wheat will be in the possession of the grain trade.

As a matter of fact, the general world price is pretty close to our guarantee. The price is higher in some countries, but when the difference in exchange is taken into consideration our wheat price is about at the general level. Mr. Gronna also seems to over-

look the fact that it will take an extraordinarily strong private organization to extend the amount of long-time credit necessary to get European business at this time. The millers have an export association which may be able to handle these credits, but as yet the grain trade has no organization which can do so. Perhaps a debenture system will be perfected through which banks will be able to discount the foreign paper offered in exchange for our wheat, but until this is done the export business would necessarily be controlled by two or three plethoric firms.

We would like to see the Grain Corporation relinquish control as soon as possible, but we are not convinced, as Mr. Gronna is, that it would immediately provide a fortune for the farmers.

WHEN DOCTORS DISAGREE

LAYMEN get a good laugh when doctors disagree, that is, when they are not the victims. Not being a resident of North Dakota, we can get a little amusement out of the very different reports on the operation of the state-owned mill at Drake. But if we lived in that commonwealth it wouldn't be funny. We would be busier than a horse's tail in fly time finding out who was the liar.

Manager J. A. McGovern of the state-owned mill reports that the net profits on the operation the first month of 26 days were \$2,349. His balance sheet shows that \$17,157 was paid for wheat and that other expenses, including loss on future sales, salaries, interest, depreciation, general expense, bags, fuel, etc., were \$3,564.36. The products of the mill were sold for \$22,579.57.

State Auditor Carl R. Kositzky makes another report. He shows that sales of products amounted to \$23,072.29 and that operating expenses were \$30,512.52, making a net loss of \$7,440 for the 26 days. There is a discrepancy of nearly \$10,000 in the two reports.

Far be it from us to judge which report is correct, but if the state-owned industry is making money it is accomplishing something which has rarely if ever been done before. North Dakota needs to do more than convince the adherents of the Non-partisan League. The whole world is watching their experiment and it cannot be fooled by doctored statements.

U. S. WILL HELP

THE International Trade Conference at Atlantic City seems to have been pretty successful in its undertaking of determining a basis upon which international trade could be conducted. All Europe needs raw material, food and machinery. England can pay cash, Belgium needs short credit and France and Italy need long-time loans. All will get what they need, for the European financial situation must be bolstered up or it is liable to collapse entirely.

In addition to supplies and credit, Europe needs a market, and as the richest country in the world, America must be willing to absorb much of their production. It is another angle to the difficult situation and quite as impor-

tant as the others. Foreign goods will be comparatively cheap for some time as a dollar will buy so much more abroad than it does here. Whether the ultimate consumer benefits in this country by that cheapness remains to be seen.

THE ANSWER

THERE have been a great many explanations of the high cost of living, but we doubt if anyone has summed up the answer more conclusively than did William B. Colver of the Federal Trade Commission in an address before the National Association of Advertising Specialties Manufacturers at Chicago recently.

The source of the trouble was put under two general heads: 1. The effort of labor to live without working; 2. The effort of capital to multiply itself without working. Under the first head were placed, the tendency to decreased hours of labor to a point beyond the efficiency balance; the inclination of organizations and individuals to limit the output to the minimum. Under the second general head we find the enormous excess profits of the past three years; the increase in land rental values; and the excessive cost of borrowing capital.

Under one or other of these heads almost all of the vexing disturbances can be placed. Added to them, of course, should be the loss of production by the employment of labor and capital in destruction. There is but one remedy—work. Over-production is the only way that cost of living may get within reach of wages. Raising wages raises prices, so it is futile. Over-production lowers prices so wages will be adequate.

HATS OFF TO IRWIN

EXACT fulfillment of the terms of the agreement with the Grain Corporation is required of grain dealers but in some cases zone managers have interpreted these terms so broadly as to take from the dealers the protection which they were given to understand would be accorded them. This applies particularly to complaints by farmers of wheat prices and grades.

Paragraph Second clearly states when and how complaints can be made, but it is reported that some complaints have received attention, even though the grain dealer fully complied with the agreement and the farmer entered his complaint after the transaction had been concluded.

But now comes an opinion from H. D. Irwin, zone manager at Philadelphia, in the case of *Bosson vs. McComas*, in which he interprets literally Paragraph Second of the grain dealers' agreement. Mr. Bosson delivered several wagon loads of wheat to Mr. McComas at his elevator at Castleton, Ind., on July 18, 19 and 21. Complaint was made on July 25, without submitting a sample of wheat, or otherwise conforming to the requirements. In giving his opinion Mr. Irwin said: "It was the duty of Mr. Bosson to have followed the provisions of Paragraph Second and to have submitted to me any controversy

in respect to the wheat at the time of delivery. Under the terms of this agreement he was not entitled to delay a final settlement with Mr. McComas. . . . Even if we assume that the complaint was made by Bosson at a later date, he did not submit to me any sample of the wheat in order that I might make a determination of the controversy as provided in Paragraph Second. The country elevator operator gave us a substantial right when he agreed to defer his judgment to that of the zone vice-president or to the Wheat Director and it would be unjust to him to decide this matter contrary to the methods agreed upon."

The farmers cannot complain of injustice in this decision for they are amply protected by the agreement, and grain dealers will welcome it as a grateful relief from the ever present threat of a rebate order after a transaction had been settled and the books closed. We are glad Mr. Irwin has spoken so clearly on the subject.

HORSE SENSE OR SENTIMENT

WHEN the varied organizations interested in the promotion of the use of the horse, banqueted together in New York on October 31, preliminary to the formation of the Horse Publicity Association, the speakers, for the most part, stated their conviction in terms of commerce and not of poetry. The temporary organizers who called the meetings, invited a great deal of ridicule by their appeal to sentiment on behalf of the horse. Poetry and romance were resorted to in the effort to convince the 20th century American business man that he should use a team of horses in preference to a motor truck or tractor.

This will not do. If the Horse Publicity Association is to make a success of its work it will have to use more horse sense in its methods. We doubt if there is more romance attached to the horses which carried the Light Brigade in its charge at Balaklava, than in the sturdy trucks in which the American Marines reached Chateau Thierry in time to turn the Hun drive toward Paris. But neither of these historic events will increase or decrease the use of the horse by a single animal. The whole question is: Does the horse drawn vehicle pay?

There is no question but that motor truck advertisers have taken advantage of the lethargy of the horse trade and made immoderate statements which there was no one to controvert. But the Horse Publicity Association will have to stick to the truth and without exaggeration in its campaign, otherwise they will be challenged by the united motor vehicle world which has plenty of money to present its side of the case.

There is plenty to be said about the value of the horse, however, without straying from the straight and narrow path, for there is no question but that the motor truck has overreached itself in some occupations and that there will be a sure reversion to the use of teams in such trades. On the other hand the Publicity Association may well take a lesson from King Canute, for they cannot hold back the use of the motor truck where that vehicle proves its economic fitness. The two classes

of haulage will eventually find their true level, and any effort to do more than this will be wasted.

There will be another meeting of the Association at Chicago on December 4, at the Congress Hotel, at which time the Saddlery Association will present an exhaustive report of its investigation of the place of the horse in production and transportation.

EDITORIAL MENTION

Sweden has set a price of \$2.75 per bushel for wheat and \$2.50 for rye. The millers control the supply.

We kept the home fires burning in response to that popular song. Will not someone write a ditty on "Keep the Grain Cars Moving."

We wonder how many of the delegates to the meeting of the Horse Publicity Association in New York drove to the hotel in a horse-drawn vehicle.

The yield of wheat in North Dakota this year was only 6.9 bushels per acre; oats, 15.5 bushels; barley, 11.5 bushels. Just see what a non-partisan league administration leads to!

The war has been over for more than a year so far as fighting is concerned. How much nearer are we to a normal peace basis than we were a year ago?

Because your house has escaped a dust explosion is no reason that it may not be the next to go, unless every precaution is taken to decrease the dust hazard.

While the coal strike is officially called off there may be considerable delay in getting a normal output from the miners, and in case the railroads become pinched, corn and oats shipments will suffer.

On October 31 the Supreme Court of Illinois held that the clause on telegraph blanks, exempting the company from liability for their errors unless the message is repeated or insured, is void. A sender can receive damages for errors in ordinary messages hereafter in Illinois.

It will be good news to the trade, that the Commercial Exchange of Philadelphia is planning to establish a "Car Examining Bureau," to make reports on conditions of grain cars arriving. This service has been conspicuous by its absence in the past and much trouble has resulted in consequence.

R. W. Wooley of the Interstate Commerce Commission held a hearing in Chicago the first week of November which the Northwest grain trade, and particularly Minnesota interests, pronounce to be a fight for life. The railroads proposed to incorporate into their tariffs recommendations which, Minneapolis claims, virtually abolishes transit privileges

for grain at Minneapolis, St. Paul and Duluth. This, they claim, would have the effect of diverting most of the grain to Chicago and of making the three points merely way stations for Chicago. The Northwest was represented by a strong delegation and their testimony will be presented to the Commission for future consideration.

One elevator in North Dakota near the boundary line received 15,000 bushels of Canadian wheat in one week, paying \$2.05 to \$2.50 per bushel for it. This was 40 to 50 cents more than the Canadians would have received at home. Border jumping is the favorite outdoor sport for Canadians with wheat to sell this fall.

Mr. Burleson, in a signed statement, recently admitted that the Postoffice Department was very efficient and prompt. Grain firms that send out quotations on Monday for business before the market opens on Tuesday morning, and have their letters delivered on Wednesday or Thursday, admit that Mr. Burleson's admission is inadmissible.

A report from one of the Northwestern States gives statistics showing that only 63 per cent of the elevators covered had grain cleaning equipment. Over 1,600 elevators were covered in the report. Here are about 600 country shippers overlooking one of the most profitable possibilities in their business. One wonders how they ever happened to get into the grain business.

Effective November 10, there was a temporary suspension of the permit system governing shipments of grain from country points to primary markets. Individual permits on grain moving between primary markets were continued. The permit system caused needless delay as the issuance of permits did not co-ordinate with car distribution. The permanency of the suspension will depend on terminal storage facilities.

The November crop report for most of the grains is in its final form. It shows corn, 2,910,250,000 bushels, averaging 28.3 bushels per acre; wheat, 918,471,000 bushels, average 12.8 per acre; oats, 1,219,521,000 bushels, average 28.9 per acre; barley, 198,298,000 bushels, average 22.3 per acre; rye, 84,552,000 bushels, average 12.9; buckwheat, 20,120,000, average 21.3; hay, 103,544,000 tons, average 1.49 tons per acre; rice, 44,261,000 bushels, average 40.6; clover seed, 967,000 bushels, average 1.6 bushels per acre.

The grain markets in Argentine have been wildly speculative since the war ended. The price of a seat on the Buenos Aires Exchange, the Bolsa, worth 1,000 pesos before the war, reached 25,000 pesos recently. The membership totals 6,053. The trend of the market is largely governed by Chicago, and it fell off correspondingly during the late corn slump, but recovered quickly when it was learned that the price of wheat would be sustained. The more one studies the world market the more one realizes that the

control exercised by any operator can be only very local and very transient. There would be far greater danger of a cash monopoly if the markets were not open.

The grain and hay shows to be held in connection with the International Live Stock Exposition at Chicago, November 29 to December 6, promise to be the finest exhibitions of grains and grasses ever assembled. The prizes given by the Chicago Board of Trade, the Grain Dealers National Association, and other organizations are worth striving for and will bring out the best that this country and Canada have to offer.

Anyone who has a roof over his head and a square meal on his table may well give thanks on November 27. The road is still pretty dark and rough, but there seems to be light ahead and a stretch of good macadam in sight. At least we have pretty well taken care of the extreme radical element. When we get a few of the profiteering highbinders we can give her a little more gas and ride easier.

The Texas Grain Dealers Association has appointed a committee to collect from the Government the losses sustained by members when the price of wheat was fixed about 60 cents under the market. The committee is collecting data for the presentations of its claims. If these claims are collected it will probably be the great grandchildren of the losers who will enjoy the award—without interest.

The craze for stock speculation received its bump when call money rose beyond reach. It was a deliberate attempt by bankers to deflect money from speculative channels to industrial use, and the effect will be wholesome. Too many men want to get money without working and the stock exchange has offered an easy way. If they can't borrow money to speculate with some of them may go to work.

Railroad Administrator Walker D. Hines took the trouble to controvert a charge of discrimination against the Southwest in favor of the Northwest as to the movement of wheat by the Administration. The charge was made by Governor Henry D. Allen of Kansas, who comes a close second to Senator Gronna in wild statement of matters that concern the farmers' interest. Mr. Hines showed that 62 per cent of the crop had been moved from the Southwest, as against 55.8 per cent from the northwest.

A report from New York states that the railroads are planning an elaborate educational campaign leading to an increase in freight rates. Any increase will necessitate an entirely new rate structure, and as the Railroad Administration seems averse to starting it, some scheme for revenue increase will probably be incorporated in the legislation which returns the roads to their owners. In view of the wage increases granted and the high cost of materials, there is no question but that rates will be advanced.

WHEAT TO BE RELEASED

In an effort to prevent flour and wheat prices from advancing and to supply millers with wheat at reasonable prices the United States Grain Corporation will sell its winter wheat to millers at cost price plus 7 cents for carrying charges for wheat in elevators and 8 cents over free on board to millers in milling zone No. 2. It is understood that other millers will have the same privilege. The sale begins November 20 and lasts five days to November 24.

Where any particular variety has been stipulated, the Grain Corporation through its vice-president, reserves the right to deliver one, two, or three grade at the market difference. Delivery is to be made five days after allotments, which are to be made by November 24, with receipts to carry at least 10 days' free storage from date of delivery of receipts, and buyer is to pay the storage thereafter. Sales will be continued after November 20 at an advance of 1 cent per bushel for each 10 days as long as suitable stocks of unsold wheat are available, although the right is reserved to terminate offers of further sales without notice.

Sample varieties are to be sold at their relative value, to be arranged through negotiations with the vice-president. The Grain Corporation will retain any benefit of transit rates. Buyers are to state preference for grade, also preference of origin with alternate if possible. Price basis for wheat before adding 7 cents carrying charge at Buffalo, Erie, Fairport, Cleveland, and Toledo, is 5½ cents over Chicago selling price. Mansfield, Ohio, equivalent to Omaha selling price, plus freight. Sheldon, Ill., St. Louis selling price plus freight. Des Moines, Kansas City selling price plus freight. Manitowoc, Chicago selling price.

Hay Exchange, spent Saturday, October 18, at Erie, Pa., inspecting a car of feed on which there was a question of quality. One of the most valuable services rendered by the inspectors and samplers of the Grain & Hay Exchange is inspecting and sampling feeds as a disinterested party where there is a controversy as to the quality or quantity.

Notwithstanding the fact that no Government wheat was bought in Cleveland this year the large elevators of this city are being utilized by the Government for storage of wheat. This is undoubtedly due to the fact that the elevators in the district where the wheat was bought have become congested. The Cleveland Grain Company has already unloaded several boats at the Elevator "A" on the Cuyahoga River.

A matter of vital interest to producers and handlers of dairy feeds was the acquittal of the northern Ohio Milk Producers who had been indicted by the grand jury of Cuyahoga County for violation of the Anti-Trust Law. When the case came up for final trial on the first of September, it was shown conclusively to the satisfaction of the court that these northern Ohio milk producers had not formed a conspiracy to restrict the milk supply and raise prices unfairly. For a time it was feared the milk producers would be under the impression that Cuyahoga County was opposed to their organization and antagonistic to them as individuals which would have had a tendency to discourage dairying and to encourage the disposal of dairy herds. With the acquittal of these men it has been proven that Cleveland is in sympathy with their movement and encourages milk producers by being agreeable to a fair milk price that will guarantee the producers a staple business. This in turn guarantees to the merchant dealing in dairy feeds or producers of dairy feeds a good and substantial market for his product in the territory surrounding Cleveland.

The Cleveland Grains Drying Company which has purchased the Faber Elevator Company is now busily engaged in overhauling that property preparatory upon entering a general grain, hay and feed business in addition to their grains drying business.

Yours truly, F. R. SOWERS,
Secretary Cleveland Grain and Hay Exchange.

WHEAT SCAB WAS SERIOUS

As is often the case in a bad wheat year, wheat scab has caused losses altogether out of proportion to the prominence given to this disease in current crop reports. The losses from scab this year were enormous in some states. Minnesota was a great sufferer. The reduced yields all over the state are attributed by Prof. Stakman, plant disease specialist at the Minnesota Experiment Station, to the prevalence of wheat scab. No variety of wheat was immune. Marquis seemed to suffer most, but the durumms were also attacked.

The "scab" attacks rye, barley, oats, corn and many wild grasses, as well as wheat. The disease is caused by a fungus parasite and is most conspicuous on the heads of wheat which are blighted. The kernels are shriveled and are often covered with a whitish or pinkish mold-like growth. A waxy substance, pinkish or orange in color, usually develops on the chaff. Early in the season the disease causes a seedling blight. Scab develops most rapidly during periods of wet weather and is seldom serious when weather conditions are entirely normal.

The heavy rainfall in June in many sections of the country explains the prevalence of scab this year. The infection is spread by the wind, like black rust, and large areas soon become affected. It is often, perhaps always, present in wheat sections, but like other diseases and pests does not develop in a noticeable degree. While farmers can control the disease to some extent by fanning seed wheat and blowing out the shriveled grains, and treating the remaining plump seed with formaldehyde, as for smut, Prof. Stakman thinks the best remedy is to develop a good commercial wheat that is resistant to scab.

COMMUNICATED

MODEST BUT SINCERE

Editor American Grain Trade: Find enclosed check for advertising for the month of October. We notice you have a very nice writeup of the St. Louis convention and enjoyed reading same.

Yours truly,

THE HUTCHINSON GRAIN COMPANY.

WORTH THE ANNUAL SUBSCRIPTION

Editor American Grain Trade: I wish to take this opportunity of complimenting your good company on the many good pictures and wonderful writeup of the St. Louis convention, in the last issue. It was just fine, and it alone was worth the annual subscription, and I am unable to figure how I could be without it, hence my inclosed check for another year. I am,

Yours truly,

D. J. LLOYD.

ECHOES OF THE REPORT

Editor American Grain Trade: I have your favor of October 22, and am glad to know that you have sent us by express the 5,000 pamphlets of the St. Louis convention.

Please accept my congratulations on your fine work. It is indeed an achievement to get that report out in such a short time. You have every reason to be proud of it. With kind personal regards, I am,

Very truly yours,

CHARLES QUINN,
Secretary.

CONGRATULATIONS AND ENDORSEMENT

Editor American Grain Trade: We want to congratulate you upon the fine report you give of the proceedings of the last Grain Dealers National Association meeting.

Do not believe you have missed a thing. Everybody should have a copy to become familiar with what transpired at the meeting and with the sayings of the various speakers, some of whom were very noted men.

You have the finest lot of photos we have ever seen in any journal, and the whole thing warrants congratulations and endorsement from everyone in the grain trade.

Yours very truly, J. F. ZAHM & COMPANY,
By Fred Mayer.

NEW ELEVATOR NEARLY COMPLETED

Editor American Grain Trade: Enclosed please find my check in payment of renewal for the "American Elevator and Grain Trade" one year. I have almost completed (October 31) my new elevator, warehouse and office rooms at this point on a spur track directly off the Short Line. The elevator has a capacity of 30,000 bushels, warehouse 30x30, and two commodious office rooms all of reinforced concrete construction. We have two Nonchokable Elevator Legs, two automatic scales,

No. 5 Monitor Receiving Separator, and also well arranged controllable wagon dump for unloading farmers' wagons.

Yours truly,

FRANK MILES,
Montpelier, Idaho.

WILL MISS NO ISSUES

Editor American Grain Trade: After looking over the convention number of your magazine, we have decided we could not afford to pass up any more issues of your paper, therefore find enclosed check for one year's subscription.

Yours truly, NORRIS GRAIN COMPANY,
W. E. Hotchkiss.

NEWS FROM THE CLEVELAND MARKET

Editor American Grain Trade: The feed market investigation here recently developed the fact that a good many dealers are filled up with good quality of feeds as the demand has been rather light due to the exceedingly good late pasturage prevailing throughout northern Ohio. There is very little demand for feed for dairy purposes that is not of good quality and in anticipation of the pastures being shortly eliminated by winter weather, there was a slight increase in mill feed prices the latter part of October.

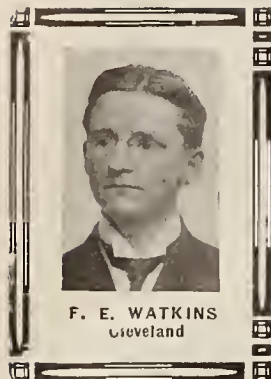
In the hay market there has been a good demand for a good quality of hay and during the fine weather farmers were in the mood for hauling which has a tendency to favoring this market with one of the best movements of hay experienced in the past year.

The hay dealers in this market are very much interested in the "Horse Publicity Campaign" that is being urged by the association in New York and it has our hearty approval. There is no question but what a little propaganda on the behalf of the horse will offset some of the work done by automobile truck manufacturers in their endeavor to force the use of that product through advertising and salesmanship, where if the users of horses would make a careful study of their teaming problems they would find that even with high feed costs, the horse is much more economical than the truck in at least 50 per cent of the ordinary hauling operations.

Announcement is made that J. C. Hennishen and George Meyers of the Star Elevator Company have purchased the King B Milling Company at Alliance, Ohio, where they will engage in a general milling business. The two gentlemen mentioned have had a wide experience with the elevator and flour business with the Star Elevator Company and should make an immediate success of their venture.

J. C. Monfort of the firm Oatman & Monfort spent a week recently at Green Springs, Ohio, superintending the construction of a large corn crib to take care of an anticipated large corn business they will have this fall.

J. E. Henniken, chief inspector of the Grain &

F. E. WATKINS
Cleveland

NEWS OF THE TERMINAL MARKETS

S. W. WILDER
Cedar Rapids

AT PITTSBURGH

"Receipts of corn here are light, and there is a good inquiry for anything on spot, and desirable grades are well taken care of. The stocks here of corn are extremely small. Market values are following Western fluctuation.

"The receipts of oats are sufficient for a light demand, and values generally are under Western quotations. There are fair to good stocks of oats here. The interior demand especially is very slow."—*Harper Grain Company, Pittsburgh, Pa. Letter of November 12.*

LARGE ARRIVALS WILL KNOCK THE SPOTS OFF

"The cash market in corn is the reflection of the very bad weather for handling grain at country stations and no doubt also of recent restrictions by individual permits in which there has not been sufficient time elapsed for a fair recovery. Incidentally it means very limited offerings here and sharp competition arising in part from the necessity to satisfy contracts for early shipment from here. A period of good weather and larger arrivals will make a big dent in the spot premiums."—*Pope & Eckhardt Company, Chicago, Ill. From Market Letter of November 12.*

GRAIN EXCHANGES CONSOLIDATE

The Ogden Grain Exchange and the Utah-Idaho Grain Exchange were consolidated as the Ogden Grain Exchange November 1 and the Salt Lake offices that had been maintained by the Utah-Idaho Exchange were closed.

The Ogden Grain Exchange has its inspection and laboratory offices in the David Eccles Building, making inspections of all wheat passing through the railroad terminals for Utah millers, elevator owners and other buyers. Officers of the Exchange are: G. B. Flack of the Sperry Flour Company, president; U. G. Holley of the Holley Milling Company, vice-president; John Taylor of the Inland Grain Company, secretary.

GRAIN SITUATION AT ST. LOUIS

"Receipts of wheat to St. Louis have been running light for the past week, which is due principally to the heavy rains we had in Missouri a week to 10 days previous, and which stopped loading during that time. The market is feeling the effects of this light loading at the present time.

"With the removal of the permit system we rather expect to see a little increase in the receipts, although country mills are using up everything in their immediate neighborhood, which is going to curtail receipts at terminal markets. The action of the Food Corporation in selling their stored wheat to the mills at 7 cents over the basic price, has practically fixed the premium at all terminal markets, as there will be no premiums beyond this price. We rather look for the market to continue on this basis for some time, or at least until the Government stops disposing of it.

"Receipts of corn have been very light, due to the same causes as in the receipts of wheat, consequently the spot market has been advanced 10 to 12 cents the past 10 days and it will take heavier receipts of grain at all terminal markets, to break this to amount to anything. Stocks of corn everywhere are about as low as they could be. Feed dealers and consumers found it almost impossible to get a wagon load of corn at any of the elevators last Monday.

"New corn is coming in here in fine shape, most

of it grading 4, occasionally a car of 3. It has been selling from \$1.39 to \$1.46, demand good. Receipts of oats have been fairly liberal. The oats are coming from Iowa and South Dakota. Premiums over the December are increasing somewhat and with the light stocks of oats that we have here and in the South and Southeast, it looks like St. Louis is going to be the best market for these oats for some time to come.

"Everyone seems to be glad that the coal strike is over and that the permit system is gone."—*Elmore-Schultz Grain Company, St. Louis, Mo. Market Letter of November 12.*

CORN AND OATS AT PEORIA

"Receipts of corn here recently have been light, due to scarcity of cars and the bad condition of country roads," say the Mueller Grain Company of Peoria, Ill., in letter of November 12. "Prices in consequence have been advancing here as well as in other terminal markets. There has been an active demand for this cereal from local and outside industries, and shippers have also been good

railroads and can ship the grain as soon as it comes in. We believe that anyone in this territory can let their grain come through this market with no fear of it being heavily discounted on account of the market conditions."—*P. M. Gale Grain Company, Indianapolis, Ind. Market Letter of November 12.*

J. S. BACHE & CO. OPENS OFFICES

Immense floral displays, the gift of friends, and congratulations of all his business associates were showered on J. P. Griffin on November 10 on the occasion of the formal opening on the bank floor of the Woman's Temple, Chicago, of the grain and stock offices of J. S. Bache & Co. Mr. Griffin is an ex-president of the Chicago Board of Trade and has conducted the grain commission firm of J. P. Griffin & Co. since 1908. Previous to that he was connected with the present Corn Products Refining Company and his entire life has been passed in association with the grain trade of Chicago. No one is more highly esteemed for his high business principles and staunch commercial qualities and few have more enthusiastic friends. Mr. Griffin



R. G. FREYMARK AND E. A. PRAEGER

buyers. Country acceptances on bids and advices of consignments have not been large the past few days. The new corn arriving is good quality excepting that considerable of it still contains a high percentage of moisture. The cold weather we are having at the present time is just what is needed for curing the new corn.

"Receipts of oats have been light also and values have been following the trend of other markets. The movement seems to be curtailed by scarcity of cars. There has been very little shipping demand for this cereal, but outside oat-meal mills have been good buyers. We understand a few lots have been worked the past week to go to south-territory."

IS "LONG" ON INDIANAPOLIS

"On account of the unsettled conditions at the present time, caused by the effect of the strikes, the inability of the roads to supply cars, etc., we have had very light receipts for the past few weeks. Indianapolis, being geographically located as she is, has been netting the shippers considerably more for their grain than the Chicago prices. There is a very good demand for the grain as fast as it arrives, and we believe that grain sent in to this market will realize as much, if not more than in any other market. We are not tied up by the

is a general partner in the company which has its head office in New York City and, as one of the largest stock and grain firms in the country, maintains branches in principal cities.

Associated with J. S. Bache & Co. are R. G. Freymark and E. A. Praeger together with all the old employes of J. P. Griffin & Co. The two former have been connected with the house for years as road men and have an acquaintance and reputation stretching throughout all the Central Western territory. We are enabled to present likeness of both these gentlemen in the accompanying picture. Mr. Freymark is married and has a very interesting family. He possesses seven years' office and 16 years' road experience and is a veteran of the Spanish War. Mr. Praeger is single but his friends report strong indications that he is to become a benedict. He began his grain career with Eschenberg & Dalton when this firm was established in Chicago and has had seven years' office experience and 13 years of traveling through Iowa, Minnesota, South Dakota and Illinois. He was late with the United States Marines and at his various stations abroad wrote very many interesting letters to the trade some of which were published in this periodical. He counts his Western friends upwards in the thousands.

J. S. Bache & Co. are members of all the leading

security and commodity exchanges of the United States and Europe, and thus are equipped to render efficient and expeditious service in the execution of transactions in stocks, bonds, cotton, grain, provisions, sugar, coffee and cottonseed oil. Increased facilities will enable the house to improve even the standard of service given on grain consignments and sales to arrive, and with Messrs. Freymark and Praeger on the job, the country may have the assurance that its interests are being looked after at all times in wholly up-to-date and efficient manner.

DETROIT SPECIALIZES IN CORN

"Trade generally has been quiet. Grain business at this time of the year is not up to normal. Wheat is being marketed here on the Government basis but receipts are light. There has been a steady demand for oats, with prices ranging locally a trifle higher than the shipping basis east. Corn values held up remarkably well, owing to the light receipts. We are convinced that there will be a brisk demand for American corn to go into Canada this fall and, in fact, prior to the recent decline, we were booking up some nice business with that country. Since the decline, however, the demand has fallen off, which indicates, to our mind, that Canadian buyers are only waiting for the break to stop and they will again come in the market.

"Detroit makes a specialty of corn and our outlet is largely to Canada and the New England States. Unless all signs fail, we anticipate a good business from these sections when cold weather hits us and the winter feeding season steps in."—*H. C. Carson & Co., Detroit, Mich. From Letter of November 12.*

FIAT PAX

Our Boy Solomon of Toledo, in asking when we will have real peace, says:

"The great war is over, but the world is not really at peace. When the world war started, some

how far it will go. It will be followed eventually by real peace when classes will work together in harmony for the general good."

DES MOINES BOARD OF TRADE

The point at which a market must establish a board of trade or grain exchange to facilitate its business, is a variable one, depending on local conditions. That the time was fully ripe when Des Moines merchants took this step last June, has been

stantiated. But now it is attracting attention, just as the livestock market did which was established a year previous to the Board of Trade.

Directly leading to the formation of the Board were the establishment of two fine mills in Des Moines, the procuring of better rates, and the growing business of the grain and elevator companies plus the interest of the banks and the Chamber of Commerce, the organization which includes in its membership all of the business interests located in the city.

The Board of Trade will have a maximum of 50 members. It has nearly that many now. These are confined almost entirely to grain companies, mills, etc. A building is now being sought which will house the Board of Trade, being utilized exclusively for that purpose.

Temporary quarters are in the Hubbell Building. This building has been the headquarters for years of many grain companies. The headquarters of another strong group has been in the Fleming Building. What is now the desire, as stated, is an exclusive building, well situated, and capable of handling the affairs of the Board of Trade and housing all the merchants.

A. V. Tischer of Chicago is the inspector and he has been an exceedingly busy man since he went there about two months ago. In his judgment there is a great promise for the grain business and he is overwhelmed with work and has already been compelled to establish quite a force of assistants.

Des Moines is contending for more favorable rates. It will unquestionably procure them. It will build up this grain industry as it has all its other important interests. In connection with this growth, the Des Moines *Capital* on November 1 carried the following story:

"Des Moines is assured one of the biggest grain elevators in the Central West, through the organization of the Planters Terminal Elevator Company, which has filed articles of incorporation.

"The incorporators of the company are Ralph



CLARK BROWN, PRESIDENT



F. H. PEASE, TREASURER



A. V. TISCHER, CHIEF INSPECTOR



ADDISON M. HALL, SECRETARY

Bible students said the scriptures prophesied four periods. They were war, revolution, anarchy, peace. We had four years of war involving all the world's great nations and several minor ones. Germany had a revolution, overthrowing autocracy and establishing a republic. The subject peoples of Austria and Turkey also secured their freedom. Russia had a revolution resulting in the overthrow of autocracy and the establishment of a constitutional democracy. This government was overthrown by the Reds and anarchy prevailed. Bolshevism spread to Hungary for awhile and is now threatening other nations including the United States. It has been the chief cause of our strikes. It is too early to say

conclusively proved by the expansion of business and the steady improvement of conditions since the Des Moines Board of Trade was established.

There have been several well established grain firms and cereal plants at Des Moines for many years, but the service extended was that of transfer only, except for the grain purchased for local consumption. No market advantages were offered, and in spite of its favorable location it was a shipping point only one degree removed from a country station.

The merchants there made claim that Des Moines was growing rapidly as a grain center, but without an exchange this claim was hard to sub-

Bolton, secretary of the Greater Des Moines Committee; A. M. Parmenter, banker, of Grimes Iowa, and George Close, of Sheldahl.

"The capitalization of the company is fixed at \$3,000,000. The sale of stock will be under the direction of R. B. Parrott.

"The company plans the erection of a 1,000,000-bushel capacity, fireproof elevator. It will deal in grain, storage for grain and advances on grain."

The officers of the Board are, Clark Brown, president; J. F. Fogarty, vice-president; F. H. Pease, treasurer; Addison M. Hall, secretary; and additional directors: W. I. Sargent, S. E. Squires, R. W. Harper, F. T. Fuller, and M. McFarlin.

CASH CORN IN DEMAND

"Until receipts of corn increase materially, prices are not apt to show any decided weakening and the demand for the cash article is apt to be of greater importance for the time being; however, farmers, according to all reports, seem anxious to sell and if sufficient cars are available, a liberal movement is expected. The large crop of an unusually good quality will tend to remedy conditions that were chiefly responsible for the high prices prevailing on last season's crop.

"Heavy oats are scarce; the country is offering little and receipts are light. The general situation shows a distinctly healthy undertone, with prices established at a level where the demand is a notable feature."—*Simons, Day & Co., Chicago, Ill. From Market Letter of November 12.*

WHEAT PLENTITUDE AND CASH PREMIUMS

"Rise of spring wheat to near \$3 raised fears of wheat shortage—yet on November 1 the various exporting wheat surpluses can be estimated, Australia 100,000,000, United States 236,000,000, Canada 76,000,000, Argentine 81,000,000. Total 493,000,000, to which can be added probably 40,000,000 new wheat for Australia and 100,000,000 for Argentine in January. Total 633,000,000.

"The new winter wheat promise can be guessed near 90 on a near 40,000,000 acreage. The get-away may equal a 640,000,000 promise. North America thus holds the chance of a 200 to 350 million surplus for 1920. India's wheat output is indifferent. Granted fair European wheat crops in 1920—the world wheat situation looks sound. Easy.

"World wheat prices apparently vary from \$1.25 to farmers in Australia, to \$2.23 in the United States and \$2.85 in Sweden. The general average, as a whole, probably sustains the idea of \$1.25 as a stable level for the winter corn futures. The problem of cheap wheat in 1920 undoubtedly rests on 1920 European harvests.

"A restraint searchlight envelopes the extraordinary cash wheat premiums of 27 to 74 cents. The basic Chicago wheat price is \$2.23 for winter and \$2.26 for spring wheat. The bystander can be permitted to express surprise at the rise of spring wheat to near \$3.00. The public, generally will prefer to consider the basic price rather than the small Northwestern crop.—*E. W. Wagner & Co., Chicago. From the Wagner Letter of November 12.*

DID YOU KNOW THAT—

—The Milwaukee Chamber of Commerce distributes five prize silver cups for the best grain grown in Wisconsin each year and if a farmer wins the cup for three years it is his for keeps?

—Jack Pershing, the famous Red Cross rooster, who died recently in Iowa, was sold and resold during the war in Iowa and the Northwest netting more than \$40,000 for the organization traveling over 8,000 miles and had been sold more than 9,000 times?

—J. Ralph Pickell, editor of the *Rosenbaum Review*, Chicago, carries on his travels his own typewriter, his own private secretary, and his own 100 per cent efficient press agent—himself?

—Captain I. P. Rumsey, head of the grain firm of Rumsey & Company of Chicago, dates his first acquaintance with the grain trade of Chicago in the year 1858 and that save for four years while serving his country in the Civil War he has been continuously identified with the city's grain and flour interests?

—E. J. Smiley became secretary of the Kansas Grain Dealers Association in 1896; Geo. A. Wells, secretary of the Western Grain Dealers Association in 1900, and Uncle Joe McCord, who was previously president, became secretary of the Ohio Grain Dealers Association in 1899?

—Fred E. Pond, secretary of the Buffalo Corn Exchange, has been for the past four years a most efficient secretary of the New York Millers State Association?

—Edward P. McKenna of McKenna & Rodgers of Chicago is one of the most public spirited citizens of the town of LaGrange in which he resides, that he was one of the hardest workers in all the Lib-

erty Loan drives and is known to have never refused support of any measure that would advance his community's moral and civic interests?

—Frank I. King of C. A. King & Co. of Toledo, Ohio, was once a newsboy and gives annually a dinner to the newsboys of Toledo, during the holiday season?

RECEIPTS LIGHT AT ST. LOUIS

Picker & Beardsley Commission Company of St. Louis, in a letter of November 13, outline conditions in that market as follows:

Receipts of wheat falling off gradually day after day. Premiums on the different grades that are now being paid are only for the better grades of milling wheat. The lower grades of No. 3 and lower are not bringing very much premium over Government prices. Our receipts today the lightest they have been for weeks and market conditions very strong and millers paid a slight advance over previous prices during the past week. We anticipate that we will see light receipts the balance of the year and we are inclined to believe that the majority of the soft red wheat has already been put into the market and we may see a strong and active market later, and with Government premiums that are now required when millers place their requisitions force them to advance prices considerably more than anticipated.

Receipts of corn continue light. The past few days of favorable weather, however, is responsible for the declining market and we find that the corn is just being gathered from the farm and it would take three or four weeks' time before any of it will be hauled to the market to any extent. Our market is paying good big premiums for old corn. New corn showing so much moisture that shippers are afraid to move it farther South.

Receipts of oats continue light and we are having a good active market, but we are prompted to believe that we will see higher prices than has been anticipated for some time to come on this article.

The rye market here is like other markets, very heavy and draggy, buyers only taking hold of occasional cars when offered at prices within range of quotations from day to day.

Receipts of kaffir corn and milo maize up to the present writing have been exceedingly light on account of the heavy rainy weather all through the producing sections of the Southwest. It will take two to four more weeks of bright dry weather to improve conditions, after which time we anticipate seeing a free movement. We are hoping for the quality to show up better than the samples have shown the past two weeks.

TERMINAL NOTES

W. H. Bartz & Co. of Des Moines, Iowa, have secured Major Moberly to represent them in Western territory.

Dilts & Morgan of Kansas City, Mo., have opened an office at Wichita, Kan., and placed Paul J. Matthews in charge.

The Hadden Grain Company has been incorporated at Milwaukee, Wis., with a capital stock of \$5,000 by E. G. and H. M. Hadden and A. W. Hemp.

R. E. Baker has again started in the grain business at Duluth, Minn., after spending about a year in the development of an oil proposition in the Southwest.

Earl Skidmore of the Brouse-Skidmore Grain Company of Cincinnati, Ohio, is home again after completing a two weeks' trip through Ohio, Indiana and Illinois.

The Scruggins-McLean Company of Minneapolis, Minn., recently filed an amendment to its articles of incorporation changing its name to the Scroggins Grain Company.

The Charles D. Jones Company of Nashville, Tenn., recently purchased the Steel Elevator & Storage Company's plant at Nashville for a consideration of \$40,000.

Walter F. McNeal of the grain and hay firm of Walter F. McNeal & Co., and Egil Steen of E. Steen & Bro., of Baltimore, Md., attended the banquet given in New York City October 30 by the

Horse Publicity Association, organized to carry on a nation-wide educational campaign to show the economic value of horse-drawn vehicles.

Albert Charrlin of Sioux Falls, S. D., formerly with C. H. Thayer & Co. of Chicago, has reengaged with this house and will represent them in Iowa, Minnesota and the Dakotas.

M. A. Donner, formerly associated with the wholesale feed trade of Buffalo, N. Y., has become connected with the Buffalo office of Taylor & Bourne Company of Milwaukee, Wis.

President Hayward of the Baltimore Chamber of Commerce recently appointed E. H. Beer, J. A. Manger and Edward T. Sheil, Jr., a committee to consider the subject of war tax on grain.

The firm of Newman & Malkemus of St. Louis, Mo., formerly dealing exclusively in brewers grits, malt and other products used by brewers, has added a grain and feed department to their business.

On November 1 the Mason Hawpe Grain Company of St. Louis, Mo., became absorbed by the Veninga-Smith Grain Company, Mr. Hawpe retiring. The firm handles all branches of the grain business.

The Newsome Feed & Grain Company of Pittsburgh, Pa., has established a branch office at 128 Corn Exchange, Minneapolis, Minn. C. F. Cramp, Jr., and J. J. Blackman from the home office are in charge.

M. F. Murphy has sold his interest in the Murphy Grain Company of Springfield, Ill., to the other stockholders, Sim Fernandes, W. A. Midden and W. W. Hill. The business of the firm continues without other change.

The Addison Grain Company of Kansas City, Mo., received late in October the first car of new shelled corn from Iowa to arrive in the Kansas City market. The corn graded No. 3 mixed and contained 17½ per cent moisture.

The Quaker Oats Company of Chicago, Ill., and other cities has purchased a site for a new plant for the manufacture of their products at Memphis, Tenn. An elevator will also be included with a capacity of 350,000 bushels.

The Springer-McComas Grain Company, Inc., of Indianapolis, Ind., offered \$25 in cash to anyone connected with the grain trade who would suggest a name acceptable to them for their new grain elevator which is now nearing completion.

C. E. Lindberg, formerly with the Wichita Grain Company of Wichita, Kan., has engaged in the grain business at Oklahoma City, Okla., as the Lindberg Grain & Feed Company with offices in 317 Southwest National Bank Building.

T. Murray Magnadier, chairman of the corn committee of the Baltimore Chamber of Commerce and a prominent grain and flour merchant of that market, was recently elected first vice-president of the Maryland Society of the War of 1812.

President Williams of the New York State Hay Dealers Association recently appointed Charles England of Baltimore, Md., as a member of the Legislative Committee of that organization and Egil Steen chairman of the Committee on Statistics.

W. E. White, recently with Logan & Bryan of Chicago, Ill., has become associated with J. Rosenbaum Grain Company and will have charge of their wire system which is being greatly enlarged over the West and Southwest and reaching down to Galveston.

George A. Magee & Co. is a new grain firm to engage in business at Philadelphia with offices in the Bourse Building. D. V. Heck, one of the firm, is also a member of Hardman & Heck of Pittsburgh, Pa., a well-known grain and hay firm on that market.

T. A. Grier of T. A. Grier & Co. of Peoria, Ill., and M. F. Murphy of the Murphy Grain Company of Springfield, Ill., have joined their interests and will carry on a grain business with head office at Peoria as the Murphy-Grier Company. J. W. Bryan, formerly manager of the Murphy Grain Company at Peoria, and A. F. Rhodes, formerly with the Murphy Grain Company at Springfield, are both with the new firm. The firm continues as

correspondents of Armour Grain Company of Chicago with private wires to the principal markets. The remaining stockholders of the Murphy Grain Company of Springfield have bought Mr. Murphy's interests and the firm will continue business as usual.

James A. Mander, for many years manager of the Armour Grain Company's Milwaukee office, has been made manager of the cereal department with headquarters at Chicago. Ray F. Zimmers, who has been assistant manager of the Milwaukee office was advanced to the post of manager.

The Adams-Reitz Grain Company has succeeded the Adams-Whyte Grain Company of Omaha, Neb. Officers of the new company are J. M. Adams, president and treasurer; A. E. Priest, vice-president; G. R. Reitz, secretary and manager; D. C. Reitz, terminal elevator superintendent.

Rosenbaum Brothers of Chicago, Ill., recently acquired a terminal elevator at Winona, Minn., having a capacity of about 250,000 bushels. They will buy grain in the country for shipment to that point where they can give Minnesota state weights and grades, the same as are obtainable at Minneapolis. The firm expects to do a large business in corn as the corn tributary to Winona is of excellent qual-

ity and large volume. They expect to make Winona a feeder for some of their Eastern elevators as well as a distributing point and anticipate doing a large volume of business.

The Stokes-Barkley Grain Company has been organized with offices in the Pierce Building, St. Louis, Mo., to conduct a general grain business. A. H. Stokes was formerly connected with the Lusk-Stokes Commission Company, now out of business, and F. H. Barkley is the head of F. H. Barkley & Co. of Decatur, Ill., which has been absorbed by the new firm. Mr. Barkley will manage the Decatur office while Mr. Stokes will have charge of affairs at St. Louis.

Taylor & Bournique Company of Milwaukee, Wis., gave their annual dinner to their managerial staff on the evening of October 17. It was held at the Milwaukee Club and was attended by 26, including members of the firm, office and elevator department heads, and the managers of their 11 branch offices. After the dinner, the members of the firm and each one of the invited guests at the table in turn, were given an opportunity to offer suggestions, or criticisms on the general conduct of the business, and many interesting discussions followed.

TRADE NOTES

The American Grain Separator Company, Limited, has been incorporated with a capital stock of \$50,000. Head office will be located at Winnipeg, Man.

The Soil Improvement Committee of the National Fertilizer Association, Chicago, Ill., announces the change of their headquarters in Chicago from the Postal Telegraph Building to Room 820 Lumber Exchange Building.

Do not overlook the Climax Scoop Truck if you want a very handy device about the grain elevator warehouse or mill. This truck on wheels is manufactured by the Detroit Scoop-Truck Company of 2227 West Jefferson Avenue, Detroit, Mich. There are now about 5,000 users of the truck and the number is constantly increasing.

L. Freeman Little, president of the Anglo-American Mill Company of Owensboro, Ky., passed through Chicago last week on his way home from a trip with his wife to the Pacific Coast. Mr. Little keeps in close touch with the business during his absences from home and reports a steady demand for the American "Midget" Marvel Mill from both the milling and grain trade.

Now that the Government has instituted its campaign of instruction with the view of decreasing the number of dust explosions in grain elevators, it may be well to point out a few of the activities of the Mutual Fire Prevention Bureau of Oxford, Mich., to lessen the fire hazard in grain and mill plants. The Bureau states that 80 per cent of all fires in mills and elevators start in elevators and will furnish full particulars on request, regarding the installation of an automatic feeding device which will prevent an elevator choking from over-feeding, and an automatic relief which will prevent an elevator choking from bin getting full or spout choking.

Grain dealers or others who desire comprehensive information and newest ideas in crushing, grinding and separating machinery will be interested in Catalog No. 103 just issued by The Bauer Bros. Co., of Springfield, Ohio. This new book of 31 pages and cover presents the Bauer "Scientific" Ball Bearing Attrition Mills and milling machinery in the best style of the printer's and illustrator's art. Chapters are given to the attrition mills, single disc mills, corn crackers, ear corn crushers, bolting reels, single shakers, double shakers, crushers and breakers, and nothing is omitted to give a clear idea of the operation and the superior qualities of these machines. A method

of installation of the attrition mill is also given as approved by the Mutual Fire Prevention Bureau of Oxford, Mich. A request will bring the catalog to your desk without delay.

Charles H. MacDowell, president of the Armour Fertilizer Works of New York, N. Y., received recent notification that in appreciation of his services as director of the Chemical Division of the U. S. War Industries Board and as a member of the Economic Section of the American Mission to Negotiate Peace, he had been made a member of the Legion d' Honneur by the French Government.

The Joseph Dixon Crucible Company, Jersey City, N. J., say that "buying paint for the protection of metal surfaces from rust and corrosion is no longer a haphazard experiment. It is an investment worthy of serious contemplation. With the high cost of labor in mind, the cost per gallon of paint should be put aside and the cost per year of service considered. Dixon's Silica-Graphite Paint has won a most enviable reputation for long-term service and satisfied users. Graphite is not affected by sunlight, heat or cold, acids or alkalis. Silica is equally impervious and is to graphite paint what copper is to gold in a chain or watch case—resists the wear of abrasion."

The John Lauson Manufacturing Company of New Hoston, Wis., with 25 years of high grade engine building experience very rightly say there is no economy in buying an engine that is going to require frequent repairs, and that is likely to balk just at the time the operator needs most to use it. They claim that the Lauson Oil Engine is not one of that character and publish full facts about its desirable features in Bulletin No. 265B, which will be mailed anywhere on request. The engine is of the horizontal type 1½ to 18 horsepower and users allege that it runs smoothly and powerfully on a minimum consumption of either gasoline, kerosene or distillate and operates on a simple magneto without the use of any batteries.

ARBITRATION DECISIONS

The following arbitration decisions have been made by National Association Committees in the past three months:

O. C. Shepard Company, Medina, Ohio, vs. Farmers Elevator & Produce Company, Bad Axe, Mich. Award to plaintiffs of \$110.26 with interest.

The Albert H. Buehole Company, Youngstown, Ohio, vs. The Heckler-Holloway Company, Monroeville, Ohio. Award to plaintiffs of \$51.50.

National Brokerage Company, Memphis, Tenn., vs. Dan Joseph Company, Columbus, Ga. Award to plaintiffs of \$157.50 with interest.

Mancy Export Company, Oklahoma City, vs. Kansas City Brokerage Company, Kansas City, Mo. Award to plaintiffs of \$220.

E. M. Rogers, Fort Worth, Texas, vs. Peirson-Lathrop Grain Company, Kansas City. Award to plaintiffs of \$108.95.

The Hinds Grain Company, Kansas City, vs. The Cook Grain Company, Dallas, Texas. Award to plaintiffs of \$175.22.

E. M. Rogers, Fort Worth, vs. Peirson-Lathrop Grain Company, Kansas City, vs. Smith Bros. Grain Company, Fort Worth. Award of \$468.82 to be paid by Smith Bros. Grain Company to E. M. Rogers.

McCaull-Dinsmore Company, Minneapolis, vs. C. V. Fisher Grain Company, Kansas City. Award to plaintiffs of \$441.84.

Moffatt Grain Company, Kansas City, vs. Schaeffer Grain Company, Wichita, Kan. Award to defendants.

Chatterton & Son, Lansing, Mich., vs. Herrman-Molran Company, Cleveland. Award to plaintiffs.

Murphy Grain Company, Springfield, Ill., vs. Urmston Grain Company, Buffalo. Award of \$252.98 to plaintiffs.

Heckler-Holloway Company, Monroeville, Ohio, vs. Ottawa County Co-operative Company, Rocky Ridge, Ohio. Award to plaintiffs of \$80.

Milton Crowe, Buffalo, vs. Horn Brothers Company, Monroeville, Ohio. Award to plaintiffs of \$1,433.08.

C. A. Gambrill Manufacturing Company, Baltimore, vs. The Updike Grain Company, Milwaukee. Award to defendants.

Long Dock Mills, Jersey City, vs. E. A. Grubbs Grain Company, Greenville, Ohio. Award to plaintiffs for 618.32.

H. D. Raddatz & Co., Toledo, vs. J. F. Eby & Son, Lancaster, Pa. Award to plaintiffs for \$110.

Tioga Mill & Elevator Company, Waverly, N. Y., vs. J. F. Eby & Son, Lancaster, Pa. Award to plaintiffs.

Dreyer Commission Company, St. Louis, vs. Cleveland Grains Drying Company, Cleveland. Case dismissed, plaintiffs to pay costs.

Cedar Rapids Grain Company, Cedar Rapids, Iowa, vs. Watson-Higgins Milling Company, Grand Rapids, Mich. Award to plaintiffs.

Dunlap Milling Company, Clarksville, Tenn., vs. Richter Grain Company, Cincinnati. Award to plaintiffs for \$1,117.96.

Richter Grain Company, Cincinnati, vs. Liberty Mills, Nashville. No award of cash settlement. Costs divided.

E. B. Conover Grain Company, Springfield, Ill., vs. Ferguson Grain Company, Fort Worth, Texas. Award to plaintiffs for \$690.

P. M. Gale Grain Company, Indianapolis, vs. H. D. Raddatz & Co., Toledo. Award to plaintiffs for \$740 and \$309.50 with interest.

The Taylor & Bournique Company, Milwaukee, vs. Globe Elevator Company, Buffalo. Award to plaintiffs for \$787.50.

C. B. Cozart Grain Company, Oklahoma City, Okla., vs. McCaull-Dinsmore Company, Minneapolis, Minn. Award to plaintiffs for \$552.63.

Dawson Grain Company, Omaha, Neb., vs. Chadwick Grain Company, Fort Worth, Texas. Award to plaintiffs for \$392.75.

Goffe & Carkener, Kansas City, Mo., vs. Seley-Earley Grain Company, Waco, Texas. Award to plaintiffs and costs divided.

The Kern Company, Omaha, Neb., vs. Cherokee Grain Company, Oklahoma City, Okla. Award to plaintiffs for \$315.68.

Kansas Milling Company, Wichita, Kan., vs. Guthrie Milling Company, Guthrie, Okla. Award to plaintiffs of one-half of amount, or \$221.15; costs divided.

A. C. Schuff & Co., Louisville, Ky., vs. The Norris Grain Company, Chicago, Ill. Award to defendants.

Beck Cereal Company, Detroit, Mich., vs. M. G. Rankin & Co., Milwaukee, Wis. Award to plaintiffs of \$41.20.

NEWS LETTERS

INDIANAPOLIS

MURRAY E. CRAIN - CORRESPONDENT

BUSINESS in corn and oats has held the center of the stage in Indianapolis recently, those crops moving fairly well despite various handicaps. Wheat receipts and shipments have slumped, naturally enough. The corn market has shown some weakness recently due to bad weather and other factors. Wheat receipts on the Board of Trade in October, 1919, were 387,500 bushels, and shipments were 197,500 bushels as against receipts of 391,250 in October, 1918, and shipments of 106,000 for the same period. Corn shipments for October, 1919, amounted to 1,200,000 bushels and shipments aggregated \$30,000, against receipts of 1,868,750 and shipments of \$57,500 a year ago. Recent oats receipts were 1,108,800 and shipments 99,000 as compared to 1,548,000 and 662,400 for the corresponding period in 1918. Only 60,000 bushels of rye were received in October, 1919, and 23,750 bushels shipped, as against 167,500 and 137,500 in October, 1918.

Some discussion of the asked price of \$5,000 for a seat on the Indianapolis Board of Trade has been in evidence recently, and there is a possibility that this price may be reduced. It took effect when the commission charge of 1 per cent was adopted by the organization. Some members of the Board believe that the stiff price tends to restrict trading and there is some sentiment in favor of a reduction of this price, as well as the transfer fee of \$500 which is in vogue. Several dealers shied off recently when they learned what it would cost them to become members of the Board and are endeavoring to buy seats from present holders.

The far-reaching decision of Judge Anderson in the United States Circuit Court here, ordering leaders of the mine workers to rescind their strike order, created deep interest among grain men. So far, no elevators have been forced to suspend operations because of a coal shortage. About 50 per cent of the elevators in the state are operated by steam and gasoline, and these would be able to operate indefinitely, the former burning coals, which, of course, are available in large amounts just now. If the strike were to last any length of time, the steam and gasoline plants, however, would be just as bad off as those electrically-operated, since the car shortage would soon minimize operations.

The delegates of the local Board of Trade to the big international conference at Atlantic City late in October reported to the organization November 3, giving the grain men an authoritative survey of the international situation. Mark Miller made a verbal report of the Atlantic City conference, emphasizing the fact that France would be rehabilitated a good deal sooner than was generally expected. The efforts of France to grow cotton in Morocco and other warm provinces also were related.

The directory of the Indiana Grain Dealers Association has been put into the hands of the printers and will be ready for issue the latter part of November. Secretary Riley announced. The volume will contain many names of new dealers who have entered the Indiana field during the last year.

Calvin Adams, manager of a grain elevator at Allison, Ind., was killed near Covington, Ind., on November 2, when an automobile in which he was riding with friends was struck by a train. James Adams, four-year old son of the grain man, suffered a broken shoulder and arm. His condition is critical.

The daily papers of Indianapolis gave so much space to the decision of H. D. Irwin, vice-president of the United States Grain Corporation, in the complaint of a member of the Indiana Federation of Farmers Associations, against the price of \$2.11 a bushel paid by McComas Brothers, well-known Indianapolis grain dealers, that Charles B. Riley, secretary of the Indiana association, is preparing the grain men's side of the question, to be given publicity in the same papers. An appeal from the decision already has been registered with Julius H. Barnes, president of the Grain Corporation. The farmers' federation is to meet in Indianapolis November 18 and 19 and some lively discussions are expected. Some of the local grain men have indicated their intention of attending the farmers' gathering. It is

interesting to note that the price of \$2.11 has not been hoisted by the farmer-stockholders of one of the big country elevators in the state, according to grain men. Though this plant is operated entirely by farmers, wheat has been bought all the summer at the same figure quoted by independent elevators.

The Executive Committee of the Indiana Grain Dealers Association will fix the date for the annual meeting in the near future. The gathering will take place at the Indianapolis Board of Trade some time in January. It has been suggested that one of the hotels be utilized for the convention, but indications are that the comfortable quarters of the Board of Trade will serve. The winter meeting of the Indiana Millers Association also will be held during January, the dates still being undetermined.

The return of the railroads to private ownership, some grain men believe, will result in much activity in elevator circles. Under Federal administration, it has been exceedingly difficult for elevator operators to secure the proper extension of track facilities. As a result, many plants have been operating under handicaps during Government control. Private ownership, it is expected, will do more toward facilitating building of spurs and other needed improvements.

George C. Bryant, field agent in Indianapolis for the Bureau of Crop Estimates of the United States Department of Agriculture, takes a pessimistic view of Indiana's crops for the remainder of 1919 and 1920. Mr. Bryant reports that not less than 20,000 acres of corn in the state is a total loss, with 100,000 damaged by excessive rains. Corn husking has been suspended. Wheat acreage will be exceedingly short, he says, unfavorable weather conditions preventing many farmers from planting until it was too late to do so.

NEW YORK

C. K. TRAFTON - CORRESPONDENT

MEMBERS of the Produce Exchange, and especially in the grain, hay, and feed trades, were pained but not surprised recently to hear of the death of Thomas Lenane, aged 72 years. Mr. Lenane came to this country with his brother Patrick over 40 years ago and soon started the grain and hay distributing firm of P. Lenane & Bro. Mr. Lenane was greatly esteemed for his integrity and modest, genial character and also for his philanthropies. His death was not unexpected because he had been ill for over a year, mainly with uraemic poisoning. He leaves one married daughter and a son, Thomas Lenane, Jr., who will continue the business.

Sam W. Thomas, for years buyer for the Brooklyn Elevator & Milling Company, Brooklyn, N. Y., has severed that connection and together with George Stilwager, who was sales manager for the same company, has bought the elevator and business of the Norwich Milling Company, of Norwich, N. Y. The members of the new firm recently took leave of their old friends and associates here to take charge of their new enterprise.

J. P. O'Hara, familiarly called "Pep" by his many friends in the hay and grain trade, came down from Monrovia, N. Y., recently and was cordially welcomed by members of the trade on the Produce Exchange. He came with O. D. Hewitt, another grain and hay man of the same town, for the purpose of attending the dinner of the Horse Publicity Association at the Pennsylvania Hotel.

Seth Catlin, chief grain inspector of the Boston Chamber of Commerce, with whom practically everyone in the grain trade is acquainted, was visiting his old friends on the New York Produce Exchange recently.

Carl Sommer-Larson of Chesapeake Export Company, Inc., grain shippers, who recently resigned his associate membership in the New York Produce Exchange, has been elected to regular membership. Wm. E. Fritz, of the old stock and grain commission firm of Maguire & Jenkins, has resigned his associate membership and applied for admission as a regular member. Other applicants admitted to membership were: George Bingham of Webb & Kenward, Inc., New York representatives of Webb & Kenward, Ltd., the old

London grain firm; Philip S. Greffe, associated with S. S. Steiner, dealer in barley and meal; Clark H. Sparks of P. N. Gray & Co., Inc., grain exporters and purchasing agents for the Belgian and Austrian Governments; Leopold Stern, associated with L. Dreyfus & Co., grain merchants; Troels Fede of the New York Overseas Company, Inc., grain exporters; and H. E. Beardsworth of the Armour Grain Company, formerly associated with Hans Simon, grain exporter, as an associate member.

Clark Fagg, formerly prominent in the grain trade as a member of the Milwaukee grain shipping firm of Fagg & Taylor, who retired recently, was among the visitors on the Produce Exchange this month.

W. A. Gardner, connected with King-Farnum & Co., commission merchants on the Chicago Board of Trade, who was recently elected to membership in the New York Stock Exchange, spent a few hours with his friends on the Produce Exchange. Another prominent Chicago visitor was Arthur Cutten, commission merchant.

PHILADELPHIA

RALPH W. E. REID, CORRESPONDENT

MEMBERS of the Commercial Exchange have unanimously approved a continuation of the permit system of controlling grain shipments for export from Philadelphia even if the embargo on wheat exports and imports is lifted by Wheat Director Barnes. Discussion of the problem by members of the Exchange showed that the Administration control is preferable to that of local elevator facilities by railroads or private owners, which, it was contended, might tend to allow discrimination in favor of certain shippers at the expense of others.

As a result of the deliberations the following communication was sent to H. D. Irwin, second vice-president of the Grain Corporation: "We beg leave to advise you that at a meeting of the Commercial Exchange the undersigned were appointed a committee to draft a resolution expressing the unanimous sentiment of the members present, relating to the handling and continuation of the present permit system, as operated by the United States Grain Corporation. The resolution adopted is as follows:

Whereas—We believe that it is imperative under the present abnormal conditions that the United States Grain Corporation should continue to supervise and issue railroad permits, and

Whereas—We also believe that the export movement can best be graduated and controlled under this arrangement, which will keep all ports free and prevent unnecessary embargoes and blockades, and

Whereas—The membership in stating that the applications filed have been considered fairly, all sections, all shippers and all grain having been given the best possible accommodation that the port facilities would afford, therefore be it

Resolved—It is in the public interest that the United States Grain Corporation shall continue its present arrangement of issuing permits for all grain and grain products consigned to Philadelphia for export, and that the membership of the Commercial Exchange has absolute confidence in the fairness and competency of the United States Grain Corporation to properly continue the issuance of permits with justice and to the best interests of all concerned."

The communication was signed by W. M. Richardson, W. B. Stites and Joseph L. King, as a special committee.

Philadelphia grain men and members of the Commercial Exchange have been informed of the dangers and methods of prevention of grain dust explosions in elevators in an illustrated lecture in the assembly room of the Bourse by Dr. H. H. Brown, of the Bureau of Chemistry, Washington. The lecture was part of a general campaign of education decided on by the Federal Grain Administration following a number of recent explosions, which Dr. Brown said have caused the deaths of 70 persons, the injury of several hundred, and the destruction of more than \$5,000,000 worth of property during this year in the United States.

By moving pictures, and by experiments in the room, Dr. Brown showed how easily dust from various grains and flour will explode. He described methods of prevention by cleansing the atmosphere by pneumatic suction, and by constant cleanliness in buildings. A fireproof building, he declared, is by no means explosion-proof.

Average production of wheat per acre in Pennsylvania during 1919 was 17.7 bushels, as compared with 18.3 last year, although the aggregate yield was larger according to the State Department of Agriculture. The Department found in making its report that in all but one of the big wheat producing counties the average per acre declined and that in Philadelphia, Delaware and other counties, where there is more or less intensive cultivation, the yield was stationary.

In counties where wheat has not been extensively grown, such as Fayette, Allegheny, Beaver, Pike, McKean and Wyoming, there was an increase in the acre yield. Lancaster, the leading wheat county, went

from an average of 20.5 to 19 bushels per acre; York, from 18.7 to 15.5; Cumberland, 19 to 17.2; Adams, 18 to 16.5; Franklin, 17.4 to 16.3, and Berks, 22 to 17.5.

The average rye yield went from 17.5 to 17 bushels; Berks, the leader, dropping from 20.5 to 18.8, while Northampton went from 18 to 18.5. The average oats yield was 29.6 bushels against 39. Almost every county showed a decline.

George S. Webster, Director of the Department of Wharves, Docks and Ferries, Philadelphia, announces that export shipments of grain from the port in 1918 totaled about 30,000,000 bushels. He says the capacity of the port is far greater than these figures indicate, but that shipments decreased on account of lack of tonnage. In 1915 a total of 47,350,059 bushels were shipped from the port and in 1917 43,095,489 bushels. The 1919 figures are expected to exceed these totals.

Louis D. Toll, office manager for S. F. Scattergood & Co., grain, feed and hay dealers with offices 456 Bourse; John McGuigan, Jr., manager of the Philadelphia branch of the Taylor & Bournique Company; Charles C. Townsend of Shane Bros. & Wilson Company, and J. D. Walls of J. D. Walls & Co., grain and feed dealers, with offices 505 Bourse, have been proposed for membership in the Commercial Exchange.

George A. Magee and D. V. Heck have opened offices at 688 Bourse under the firm name of George A. Magee & Co., to deal in grain, hay and millfeed. The firm has a membership in the Philadelphia Commercial Exchange, Pittsburgh Grain & Hay Exchange and the National Hay Association.

The Commercial Exchange is planning to establish a "car examining bureau" in Philadelphia for the purpose of making official examinations and reports on all incoming shipments of grain handled through the Commercial Exchange. The bureau is proposed in place of the present system of grain inspection, which is said to be inadequate for a grain center of Philadelphia's importance. The bureau, as outlined in the announcement of A. B. Clemmer, secretary of the Commercial Exchange, is to be under the supervision of the Grain Committee and shall fix inspection charges, appoint supervisors, and other employees. Reports will be made as to the condition of grain received, as well as regarding leaks in cars, condition of door seals and other details which at present, it is said, cannot be fully cared for by the existing force.

Winfield S. Woodward, surviving member of the firm of W. S. Woodward & Co., Twenty-third and Cherry Streets, feed dealers and millers, announces that he has sold the entire business, comprising the mill and main offices at Twenty-third and Cherry Streets and five other warehouses and stores situated in various parts of the city, to William G. Morse of Germantown and Richard Haughton, Paoli, Pa., who will continue the business under the name of Woodward & Co. Mr. Woodward will continue his membership in the Commercial Exchange and the new interests have joined the Exchange under the firm name of Woodward & Co.

ST. LOUIS

R. O. JOHNSON - CORRESPONDENT

IN race track parlance "a good thing went wrong" on the St. Louis Merchants' Exchange recently. Apparently the stage was all set for a "squeeze" of shorts in December corn, as the price had mounted over 20 cents in a very short time, and the bad weather and requirement of permits on making shipments had the shorts in a very bad hole with receipts practically nothing and little if any stock for delivery in elevators. When the outlook was blackest for the shorts, however, the "picture" changed overnight. Millers and grain men on the Merchants' Exchange petitioned Bert Lang of the U. S. Grain Corporation here in an effort to have the permit system abolished, pointing out that it was materially interfering with the movement of corn to market, and was actually making possible an acute corner in the December option. At the same time that Mr. Lang received his petition, other exchanges asked Julius Barnes, Federal Wheat Director, to remove the ban on shipments, and the action brought relief over night, and routed the bulls completely. Announcement by the Grain Corporation that permits would be unnecessary on shipments of grain from farms after November 10 caught the market broadside and prices dropped over 10 cents in two days, with the December option, of course, the weakest. To further augment the selling, announcement was made at the same time that the Grain Corporation would sell some of its wheat to millers at reduced prices if found necessary to relieve strain on the flour trade. The result of it all was that sentiment changed very quickly from the bull position as to the future of corn to one of extreme bearishness, and even at the recent wide decline the speculative element still leans to the bear

side of the market. Regardless of the break in corn, however, there is a strong sentiment for higher prices in oats, and many dealers openly predict that if corn even holds the present price level, oats will eventually rise to near the dollar mark. Those favoring the market do so on the small crop of oats raised this year: the lightweight of the grain, and the fact that the export trade probably will be a big factor in the market in the not distant future, while domestic demands even now apparently are such as to keep stocks from increasing as they should at this season of the year. The cash demand for oats has been good here, even when cash corn market showed signs of "slipping" in sympathy with futures.

Members of the Merchants' Exchange are having a good laugh on Alex Harsh, president of the Elmore-Schultz Grain Company, because inmates of some of St. Louis, charitable institutions feasted on wild duck recently as a result of the skill of two St. Louis hunters.

The ducks, 42 of them, were brought to town by Alex Harsh and J. Sidney Smith, another grain dealer, from a day's shooting near Beardstown, Ill. Harsh and Smith "donated" the ducks to the charitable institutions when they were told at the Union Station that their licenses were faulty.

Effective November 1, 1919, the business activities of the Mason Hawpe Grain Company; G. A. Veninga & Co., and the Veninga-Smith Grain Company, were consolidated and in the future will be operated as the Veninga-Smith Grain Company, with the same personnel as in the past, with the exception of Mr. Mason H. Hawpe, who retires. The new organization will handle all branches of the grain business and will endeavor through service to show appreciation of all business entrusted to it.

Missouri's 1919 corn crop will amount to 155,312,000 bushels, or an increase of 21,512,000 bushels over 1918, according to a report by E. A. Logan and Jewell Mayes of the Federal and State Crop Reporting Service, issued November 11. The report said there is an average yield of 27 bushels an acre for the 5,756,000 acres, as against an average of 20 bushels an acre last year.

The quality of the corn this year is considerably higher than that of last year, being reported at \$2 per cent, as against 73 per cent for 1918. The sowing of wheat has been practically completed, but much late sowing was prevented by rain, according to the report. More wheat will be sown in southwest Missouri with a cessation of the rains.

At a meeting of the Board of Directors of the St. Louis Merchants' Exchange recently, the following resolution was adopted: "The seller of every car of cash grain, within 10 minutes after such sale is effected, shall furnish a memorandum of such sale to the official recorder showing the grade and price at which such car has been sold. The official recorder shall thereupon post same immediately upon the blackboard provided by the Exchange for the purpose."

Three additional new barges and the stern-wheel steamer *Barrett*, one of the two largest cargo carriers on the Mississippi, arrived in St. Louis recently for the purpose of being placed in the Government river service between St. Louis and New Orleans. The barges will be loaded with grain and will make the trip to New Orleans shortly in what probably will be the largest single tow which has ever left the city. The three barges and one other will be loaded with grain. The total load of grain will be 250,000 bushels. In addition two barges loaded with merchandise will be in the tow. The Marshall Hall Grain Company, the Powell & O'Rourke Grain Company and other prominent firms of St. Louis will make shipments on the barges.

Members of the St. Louis Merchants Exchange, at a recent special election, voted the following amendment to the rules: On and after October 21, 1919, regular contracts for oats for future delivery shall be for "contract" oats, and on such contracts tender of any or all of the following grades shall be sufficient: No. 1 white oats, No. 2 white oats, No. 3 white oats. Provided, however, that on all No. 3 white oats so tendered one and one-half cent (1½c) per bushel shall be deducted from the contract price. In the past No. 3 white oats were delivered flat.

Black Hawk and Red Fox, two Indians from the Yakima Indian Reservation, Washington, were visitors on the Merchants Exchange recently with William T. Hilmer, St. Louis representative of the Chicago firm of Pynchon & Co. One of the Indians several years ago attracted attention by riding horseback from the Reservation to Washington and return, in an effort to have President Wilson give the Indians the right of suffrage.

Dr. H. H. Brown of the Department of Agricultural, who is touring the country delivering lectures on grain dust explosions, spoke on the floor of the Merchants Exchange on November 7. Dr. Brown is an authority on grain dust explosions and fire losses, having made this subject his life's work. He is a

very able speaker and handled his subject in a masterly manner. Motion picture films and slides were used in connection with the lecture and proved very effective.

KANSAS CITY

B. S. BROWN - CORRESPONDENT

RECEIPTS of wheat at Kansas City last month showed a substantial decrease from the high level of the season but were well above the average for October. Total arrivals amounted to 6,056,100 bushels, compared with 10,500,000 bushels in September and 4,297,000 bushels a year ago. The October average is about 5,500,000 bushels. Congestion in elevators here and the resulting inability of railroads to move grain from the country prevented a larger movement. A further falling off in arrivals is expected this month as there is no relief from congestion in sight and a serious car shortage is being experienced in all parts of the Southwest. Arrivals of corn in October were 500,000 bushels, an increase of 143,000 bushels over the preceding month, but less than as much as in the corresponding month a year ago. The average movement in October for the past 10 years is 904 bushels. Oats receipts continued small, 794,000 bushels, compared with 891,000 bushels in September and an average October movement of 1,000,000.

Kansas City, like most other winter wheat markets, is tied up with wheat and has small prospects of relief in the near future. Elevator stocks amount to nearly 15,000,000 bushels and are within a few hundred thousand bushels of the high level of the season, leaving practically no working space or storage room for coarse grains. The plans of the Grain Corporation, announced two months ago, to relieve congestion by moving to Chicago, Milwaukee and thence to the Eastern Seaboard a substantial part of its holdings, could not be carried out effectively on account of the difficulty of securing cars. Some grain had been moved, but only enough to allow stocks to remain about stationary and not enough to afford much relief.

Demand for carlots of wheat at Kansas City the past few weeks has been good, especially for the better grades, and prices have gradually advanced. On November 6 dark hard varieties were quoted as high as \$2.57 and choice red was worth \$2.32. Arrivals have included a liberal proportion of low grade grain, which sold slowly. The range of prices continued highly irregular and wide, as much as 30 cents for the same grades of hard wheat.

Requests have already begun to come to the Kansas City office of the Grain Corporation for Government wheat. The better grades are wanted in parts of Oklahoma and Texas. D. F. Piazek, second vice-president, said no announcements had been made yet, relative to selling Government wheat on the domestic market.

Elevator operators here expressed little concern over the coal strike. Those depending directly on coal for power generally had two to three months' supply on hand and one had nearly five months' reserve.

The first car of new ear corn was received at Kansas City October 20 by the C. V. Fisher Grain Company from a Missouri point. Quality was fair. Since then numerous cars of shelled corn have been received from Iowa. Moisture content has been low and prices have been about in line with old corn offerings.

Members of the Kansas City Board of Trade are talking of buying the building they occupy from the Guardian Trust Company. A difference of about \$50,000 exists between the ideas of buyers and sellers and is one of the main handicaps, though some of the grain men do not favor buying the building as they have a five-year lease and may want a different location when the lease expires.

From all private reports received at Kansas City from Kansas, Missouri and Oklahoma there will be a substantial reduction in the winter wheat acreage this season. Farmers feel that the price is uncertain and in addition the weather has been very unfavorable for fall work. Generally a reduction of 15 to 25 per cent from last year is indicated.

The position of Texas in the corn market has changed materially. Up to a few weeks ago it was regarded as certain that the state would soon be able to ship a big amount of its surplus corn crop and thus cause a substantial reduction in demand from the more northern markets, but shipments have not been forthcoming. Excessive rains in Texas have been unfavorable for a movement of corn and in addition a car shortage has kept the crop at home. Kansas City firms have ordinarily

had a big business in the South and with this change in the situation it is felt that the demand will be much the same as formerly. The movement of Texas kaffir and milo has also been delayed by rains and lack of transportation facilities. A large short interest is understood to exist in kaffir and milo at Kansas City and dealers have probably taken severe losses due to the delayed shipments.

Numerous hearings have been conducted the past month at the office of the Grain Corporation in Kansas City of cases where grain dealers in this zone were charged with violation of a Government regulation. Ten licenses have been revoked recently.

On account of labor difficulties, the opening of the 1,000,000 bushel addition to the Norris Elevator has been postponed again to the latter half of this month. Manager Fred Hoose recently announced. From present indications it probably will be filled at once as there is an urgent demand for storage space. The addition doubles the capacity of the plant.

A contract has been let by the Burlington Railroad to the Burrell Engineering Company for the construction of the Murray Elevator in North Kansas City, recently destroyed by dust explosion and fire. The cost will be about \$300,000, which is slightly under earlier estimates of the damage. The work of salvaging the grain in the plant is proceeding slowly, due to the nature of the wreck and to a shortage of cars. All probably cannot be removed until the latter part of the month. The damage to grain was small, or appears to be, though it cannot be fully determined until the salvaging has been completed.

Operators of several of the larger Kansas City elevators said recently that the labor situation was decidedly easier. There have been no reductions in wages, but an increased number of applicants for practically all branches of elevator work have been noted, and consequently there is less disposition on the part of laborers to be dissatisfied or to want to "arbitrate."

At the request of policy holders, a receiver has been appointed for the Missouri Farmers' Mutual Crop Insurance Company, which, it is claimed, failed to cover losses sustained by farmers of the state this season. Stockholders stated that officials of the company appropriated practically \$200,000 of the company's capital.

CINCINNATI

CLYDE LEVI

CORRESPONDENT

RAIN interfered materially with the hay market in Cincinnati during October and several days during November, operations at the plugging track being held under difficulties. Quotations now are nominally unchanged. The market, apparently, is in good shape, buyers with urgent orders being anxious for supplies. Choice timothy, good light mixed and pure clover is in excellent demand.

More than 100,000 bushels of corn, it is estimated, have been damaged by the sudden rise in the Ohio River and tributaries through the inundation of the lowlands on the Big and Little Miami Rivers and the Whitewater River. Thousands of acres were under water and the great loss is expected to be in the vicinity of Homestead and Elizabethtown, in the Big Miami Valley, near Cleves, and in the vicinity of the Union Levee and Turkey Bottoms in the Little Miami Valley. The rapid rise of the Scioto River also caught many farmers unawares, who were unable to obtain help to cut and haul away their own crop, and are now facing an estimated loss of 400,000 bushels as either damaged or swept away by the flood.

There were an unusually large number of visitors to the Cincinnati Grain and Hay Exchange during the past month. Those who signed the register were G. A. Hax, Baltimore; J. G. Steele, Cottonwood, Mo.; Elbert Shaw, Helena, Ark.; W. M. C. Hayward, Indianapolis; D. R. Swisher, Campbelltown, Ohio; D. Y. Hengitt, Baltimore; H. Fackler, Lafayette, Ohio; R. F. Collins, Paris, Ky.; P. K. Urton, Marion, Ohio; E. S. Hamilton, Greenfield, Ohio; D. W. McMillen, Ft. Wayne, Ind.; W. P. Neel, Holton, Ind.; S. A. Van Horn, Lawrenceburg, Ind.

The prospects of the Grain and Hay Exchange returning to its old quarters in the Chamber of Commerce appear brighter at this time than at any other time since the Exchange left the Chamber and established its own headquarters in the Gwynne Building. The Exchange members are thoroughly content with their headquarters where they are doing an enormous business and are getting along splendidly. But they

will return to their former quarters, it is believed, but their return must be on their own terms and not on terms dictated by the Chamber of Commerce.

The two committees appointed by the two organizations to bring about the transfer of the Exchange to its old habitat have about reached an agreement and announcement either for the removal or against it is expected almost daily.

The Chamber of Commerce realizes that it has no business to let the Exchange get away from the Chamber. There certainly was a "bloomer" pulled when the decision was reached to let such a fine organization leave the Chamber and the members are not slow in admitting that it should never have been.

So in the hopes that the hay and grain men can be persuaded to return, the Chamber of Commerce has appointed a committee consisting of Andy Braun, George Dieterle, Jr., and H. E. Siter. This committee has met with the committee from the Grain and Hay Exchange, consisting of John De Molet, Charles S. Maguire and Lyman Perin. At this meeting the Exchange was solicited by the Chamber of Commerce committee to return and again become a part of the Chamber.

The reply of the committee of the Grain and Hay Exchange was that it would only return upon its own terms—that executive and inspection offices must be exclusively provided for the Exchange and that a large section of the Exchange floor must be for its independent use.

There is an active demand for both old and new crops of corn but trading is restricted by the light movement. New ear corn sells readily at firm prices. All other prices are practically unchanged with a slight decline for yellow. New shelled corn is discounted from 5 cents to 7 cents per bushel from old corn as to grade.

The reported sales of oats so far this month fail to reflect the demand. Transactions are mostly of light weight and good heavy grain is held higher. The market on barley is quiet. On mill feed the market is weak and inactive. The rye market is steady.

Alfred Gowling, grain merchant with offices in the Union Central Building and who resides in Newport, was an unsuccessful candidate for election as mayor of Newport at the election held November 4. He was on the Democratic ticket, put up a wonderful campaign, but was snowed under with the rest of the Democrats in the general landslide for the G. O. P.

Christian Mulhauser, 72, for 25 years engaged in the malt business in Cincinnati under the firm name of the Christian Mulhauser Malt Company died at his home here. He retired several years ago because of ill health. Two sons, Walter and George Mulhauser and a daughter, Miss Laura Mulhauser, survive.

Harold C. Eustis, broker, has applied for membership in the Chamber of Commerce.

Joseph F. Costello, grain merchant, has returned from an extensive tour of the Northwest.

D. J. Schuh, executive secretary of the Cincinnati Hay and Grain Exchange, has been elected treasurer of the Robert E. Bentley Post, American Legion. Mr. Schuh served in the navy during the war.

Under the hay plugging system operated at Cincinnati the one-price basis for the contents of the car enables the shipper to form a more accurate basis of value as to the character of hay in his territory and what it will about realize when offered on the plug tracks here for sale.

Charles T. Crowe, hay and grain merchant of Lexington, Ky., has filed suit in the Hamilton County Common Pleas Court against Joseph S. Bateman, grain broker, 30 Carew Building, Cincinnati, alleging that he became surety on a note Bateman gave the Phoenix and the Third National Bank of Lexington, Ky., for \$2,500. He said Bateman failed to pay it last August and he, as surety, did so. He sues for \$2,535.

President Edwin C. Gibbs of the Chamber of Commerce has named a committee to prepare resolutions on the death of Robert Montgomery, who until his death, October 9, was the oldest active member of the grain and provision end of the Chamber.

In western Ohio attempts are being made to organize unions of farm hands. The demands are for \$7 a day with eight hours' work. In many parts of the state the wages paid for corn cutters was as high as \$20 a day on the piece-work basis.

Ohio has good crops to be thankful for this year. Its wheat crop was large and now follows a good corn crop, the harvesting of which has not been completed. J. L. Cochran in charge of the Ohio crop reporting service says that with a record-breaking average yield of 44 bushels per acre, Ohio produced

a corn crop this year of 150,544,000 bushels. This exceeds last year's crop by about 26,000,000 bushels and the 10-year average producing of the state by nearly 13,000,000 bushels. The quality of the crop is 92 per cent, nine points above the 10-year average, and would undoubtedly have been higher had the October weather been less unfavorable for the proper conditioning of the grain. The important role that the silo is playing in the agricultural industry of the state is shown by the fact that about 11 per cent of the total acreage planted to corn this year was cut for silos, with an average yield of 8.4 tons per acre.

Although the threshing of the crop was greatly interfered with by rain, buckwheat yielded splendidly this year, the average for the state being 23.9 bushels per acre. This gives a total production of 669,000 bushels, which is 221,000 bushels larger than last year's crop, and 255,000 bushels above the average production for the past 10 years.

The wheat market is firm and has been good right along during the past month. The demand is strong and all offerings are well absorbed. There are many inquiries for heavyweight grain for milling purposes.

BUFFALO

ELMER M. HILL

CORRESPONDENT

THERE is much speculation among grain and elevator interests at Buffalo relative to the prospects for a winter storage grain fleet at this port. Some look to a fair quantity while other grainmen are pessimistic. The general impression prevails, however, that even though a few boats tie up here with storage cargoes, the number will not be as large as former years when scores of big carriers held cargoes at the breakwater all winter.

Precautions for preventing grain dust explosions were outlined by Dr. H. H. Brown, chief witness of the Bureau of Chemistry at Washington, to Buffalo and western New York grain and elevator men at the Hotel Statler early in the month. Views of elevators wrecked in explosions of grain dust were shown and Prof. Riley of Washington, using a small elevator as a model, gave demonstrations of the types of explosions which are most frequent. The conference was one of a series that is being conducted at big grain handling centers by the Government in its educational campaign in an effort to check carelessness in handling grain. Charles Kennedy of Buffalo, second vice-president of the United States Grain Corporation, introduced Dr. Brown.

George H. Fullerton of the Buffalo office of the United States Grain Corporation, has received from Julius H. Barnes, president, a statement in reference to rumors that there is a possibility that the Corporation will offer for resale some of its wheat supply at various points in the United States. The statement says: "We are working out a plan to resell from our stocks of wheat, if needed for milling, so that there need be no anxiety about milling supplies in the United States. Stocks of wheat are larger now than at any time last year, mill production is very large and we are glad to have it continue so until the flour demand is fairly well satisfied."

A report unfavorable to the construction by the United States Government of a ship canal connecting Lakes Erie and Ontario has been filed by the United States Engineering Corps of which Colonel James G. Warren is division officer in charge. The report hits at the construction of a proposed canal whereby large lake grain carriers could pass from Lake Erie into Lake Ontario thus partly sealing the doom of Buffalo as a big grain receiving port in favor of Montreal or other Canadian ports nearer the Atlantic on the St. Lawrence River.

The Monarch Engineering Corporation of Buffalo has been awarded a contract by the Shredded Wheat Company of Niagara Falls for the construction of a reinforced concrete addition to its grain storage facilities in Niagara Falls. The addition will have a capacity for storing approximately 300,000 bushels of grain, bringing the total grain storage facilities of the Shredded Wheat Company to up almost 1,000,000 bushels. This is the fourth non-competitive contract awarded the Monarch Engineering Corporation by the Shredded Wheat Company for the construction of grain storage facilities. Construction work will probably not be started until spring on the new addition. The bins will be circular in shape and will correspond to the bins now being used.

The Eastern Grain Mill & Elevator Corporation, of which Nisbct Grammer is president, has leased the Evans Elevator in the Buffalo harbor from Henry Turner, president of the Evans Elevator Company. The Evans Elevator which has a capacity of about 400,000 bushels, is on the New York Central and the Evans slip. It is one of the older structures. Edwin

T. Douglass will manage the structure which will be operated as a lake and rail elevator. The acquisition of the Evans Elevator will materially increase the grain storage facilities of the Eastern Grain, Mill & Elevator Corporation, which now owns and operates the largest grain elevator at this end of the lakes—the Concrete.

The Pennsylvania Railroad is planning the construction of a modern grain elevator at Sodus Point, N. Y., in connection with contemplated improvements at this point to cost several millions of dollars. It is proposed to construct the elevator this winter so that it will be completed in time to handle the grain business from the Great Lakes as soon as the Welland Canal is enlarged, to permit the larger grain boats from the upper lakes to reach Lake Ontario. Sodus Point is near Rochester. When the new elevator is constructed, much of the grain handled by the Pennsylvania Railroad at Buffalo will be transferred to this port. The situation at Sodus Point has been thoroughly analyzed and the railway company's experts are optimistic on the outcome. The port is one of the best on the southern shore of Lake Ontario. A channel 22 feet deep is now being dredged to the site of the proposed elevator.

"Tim" C. Burke, well-known in Buffalo grain circles and a former Buffalonian, has resigned as manager of the Toledo office of E. W. Wagner & Co., to become manager of the new Toledo office of Pyncheon & Co. The new offices have been established in the Toledo Produce Exchange Building. Mr. Burke has been with E. W. Wagner & Co., for three years, being stationed at Chicago for two years prior to becoming manager of the Toledo office. A. J. Burkhardt of Chicago will succeed Mr. Burke as manager of the Wagner office in Toledo, according to announcement made here.

Fred A. Stanley, freight traffic manager for the Great Lakes Transit Corporation of Buffalo, has returned from a tour of the Northwest. He says he found business generally brisk and that the only thing that will prevent a big movement of grain and flour down the lakes this fall is the embargo placed on export merchandise due to the strike in New York. He says that if the longshoremen's strike is ended quickly, there will be a lively movement of grain and flour down the lakes in the closing weeks of navigation.

W. D. Sanderson, late of the Washburn-Crosby Company of Buffalo, has been appointed shippers' representative of the Niagara Frontier Operating Committee for the United States Railroad Administration. He will aid in expediting the movement of cars in the Buffalo yards, especially with a view of facilitating the movement of grain between terminal elevators in Buffalo and the Atlantic Seaboard. The results of Mr. Sanderson's efforts are being felt immediately, operators of waterfront grain elevators say. Delays are being reduced to a minimum and elevators are having little difficulty in getting sufficient cars to care for their daily needs. Mr. Sanderson's territory takes in the yards at Gardenville and Suspension Bridge at Niagara Falls.

LOUISVILLE

A. W. WILLIAMS - CORRESPONDENT

WITH the lifting of the permit system of securing cars for grain shipments it is believed that movement of corn and oats will show material improvement. During the past two or three weeks the local market has been rather quiet, with very light demand and general movement. However, new corn is moving in a light way, and will move much better now that the weather is colder and it is better cured. New corn is unusually dry, due to the long dry spell in August and September. Since the 20th of September there has been a great deal of rainfall throughout the state, and late corn is not so dry.

Wheat movement has been good, and wheat is in excellent demand. However, receipts have fallen off materially of late, and it is claimed that there is very little wheat in the farmers' hands in this section. Prices are strong with Louisville quoting \$2.30 a bushel, the average premium on cash wheat today being around eight cents a bushel for No. 2 red, soft winter.

Hay prices have been rather high for new hay, while demand has been good up to the present time. It is reported that the state is well stocked, and that Southern demand, which was good, has slumped off. During the shipping troubles on the Atlantic Coast hay failed to go by the combined rail and water routes, resulting in a better demand on the local market. Today the markets are well stocked, and receipts are much lighter. Straw receipts are especially light, as the market is so low that farmers can't bale and ship

straw profitably. Clover hay is very scarce and high this year, due to a light crop and such high seed prices that very little new clover is being grown.

The feed market is in excellent shape, there being a big demand for both mill feeds and manufactured feeds at very fair prices.

Louisville corn mills are running around 16 hours a day, and report a very fair demand for various grades of meal, hominy, corn and corn flour. Mills have been endeavoring to anticipate December corn values and sell their meal low enough at the present time to force an immediate demand, resulting in a range of prices at from \$3.50 a hundred on unbolted meal to \$4.10 for corn flour. The corn market has been so wild the past few days that it has been trying to keep up with it. However, better ear supply and steadier weather will force a steadier market.

Louisville wheat millers are generally of the opinion that higher flour markets will prevail as soon as export business is back on a normal basis. It is believed that 1919 wheat will be well cleaned up, and that the Government can't possibly suffer a loss on the crop, it being pointed out that home consumption and export movement have been much heavier than last year, while the crop was not anything like as large as had been predicted. The big premiums now paid on all grades of wheat is strongly in favor of higher prices. Much discussion is being heard relative to importation of Canadian wheat, but it is doubtful whether the embargo will be lifted before spring if at all, and it is also very doubtful in the minds of grain men whether much wheat would come in then.

S. Thurston Ballard, president of the Ballard & Ballard Company, Louisville, was elected lieutenant governor of Kentucky on November 4 on the Republican ticket, which rolled up a majority of 35,000, the largest on record. The ticket carried Louisville by more than 10,000 votes, due in part to the fact that Louisville went Republican at the last election, and due to the airing of some irregularities at Frankfort. The fact that the winning ticket was composed of steady business men helped materially, as conditions are such at the present time that business men want a business administration.

Mr. Ballard was formerly chairman of the Federal Commission on Industrial Relations, and has made a close study of various labor problems. Edwin P. Morrow, who was elected governor, missed election four years ago by about 300 votes, when he was beaten by present U. S. Senator A. O. Stanley.

During the campaign the opposing leaders caused the Ballard & Ballard Company considerable annoyance through issuing wild reports. It was stated in the papers that the Ballard & Ballard Company was charging \$1.10 more for a barrel of flour in Kentucky than in the South. Mr. Ballard in his reply showed that the company jobbed its own flour in Louisville, under the 30, 60 and 90-day payments, delivered, collected, etc., whereas Southern business is on sight draft, bill lading attached, car lots.

Indications are that Kentucky will harvest a very light wheat crop in 1920, due to a heavy rainfall in the past two months, which has resulted in farmers being unable to plant grass seeds or wheat. Very little acreage has been sown to anything so far this fall, and it is beginning to get late.

John B. Wathen, pioneer distiller of Louisville, and father of O. H. Wathen, R. E. Wathen and J. B. Wathen, Jr., of the Wathen Milling Company, Louisville, died at his home in Louisville a few days ago, following an illness of nearly a year. Mr. Wathen at one time was the largest distiller in the state, and founded the present Wathen fortunes.

At Paris, Ky., the grain elevator of Reuben H. Hutchcraft, grain and seed operator, was recently sold to Lawrence Mitchell of North Middletown, Ky., and Messrs. Perry & McCann of Shelby County, who plan to improve the mill and handle a general grain business.

Work is progressing rapidly on the old Ferneliffe Distillery, which is being remodeled for the Ferneliffe Grain & Feed Company, which will make various stock feeds. Motors are now being installed, and the work will be completed shortly.

Officials of the Kentucky Public Elevator Company and other steam driven mills at Louisville were worried last week over coal supply, when the U. S. Administration commandeered all shipments, but releases are now being made, and it is believed that conditions will be much better. Kentucky is mining a great deal of coal in spite of the strike, western Kentucky mines operating almost full.

Heavy rains in various sections of the state have done untold damage as the result of various small rivers and streams going on rampages. Reports from Evansville, Ind., were to the effect that farmers were harvesting corn from lowlands in boats, and that thousands of acres of corn in the shock were under water, with much corn swept away. Similar reports were received from Hickman on November 6. Greens-

burg, Ky., reported 5,000 acres of corn under water, and damage estimated at \$1,500,000. Owingsville, Ky., on the upper section, reported heavy losses of corn, oats and hay, as a result of flood stages on the Licking River.

R. Lee Callahan, chairman of the Grain Committee of the Louisville Board of Trade, and W. A. Wilde, chief clerk, were recently in Chicago, attending a grain rate hearing before Commissioner Wooley of the Interstate Commerce Commission regarding inequalities resulting from advance in rates in 1918, which caused many rates to be thrown out of line.

MILWAUKEE

C. O. SKINROOD - CORRESPONDENT

MILWAUKEE malting industries report that under the new dry restrictions there will be very little if any malting. Bruno E. Fink, secretary of the Milwaukee Grain & Malting Company in Milwaukee, asserts that the whole malting business in the country will be killed.

"Malting trade is now practically negligible," said Mr. Fink. "The extent to which malt will be used under the dry regime would not keep one malting house going in the entire United States."

Mr. Fink declared that demands for malt for purposes other than beer making are so slight as scarcely to be worthy of consideration. The malt demand for toasted corn flakes from bakers and for a few other things would not be of sufficient volume to affect the trade, he said. A large financial loss is expected to be entailed by the closing of all the malting plants. Many of the owners of the plants will make some effort to go into other lines of business, but this will take some time.

Henry J. Stark, secretary of the Pabst Brewing Company, says that the soft drink business is not of large enough proportions to be worthy of great consideration. He stated that soft drinks will never be consumed to anywhere near the extent of the beer and that there is therefore little likelihood of any large demand for grain from these sources.

George E. Hooker, trade commissioner for the Department of Commerce at Washington, has arrived in Milwaukee to confer with officials of the Chamber of Commerce and the Association of Commerce relative to what can be done to improve transportation conditions in this district. Mr. Hooker is making a careful investigation of the outgoing and incoming commerce of this district with a view to learning what changes are needed to give the grain trade and other business men better service. Both water and rail outlets for the city will be carefully investigated by Mr. Hooker and recommendations will be made to the proper government authorities to remedy conditions.

The November rate of interest has been fixed by the Finance Committee of the Chamber of Commerce at 7 per cent. This is the high rate which has prevailed for some months past.

Corn appears to be exceedingly scarce in Milwaukee, judging from the statement of grain in store in the city on November 1. At that time there was in store 2,552,000 bushels of wheat in round numbers, 49,000 bushels of corn, 875,000 bushels of oats, 252,000 bushels of barley and 378,000 bushels of rye.

The movement of oats to Milwaukee is much less than last year, in line with a similar lack of offerings in other markets. The shipments during the present crop season have declined from about 13,000,000 bushels last year to 10,000,000 bushels last year. Milwaukee, however, easily stands second among primary markets in receipts of oats. Chicago leads on this crop year with receipts of some 28,000,000 bushels. Milwaukee follows with more than 10,000,000 and the next largest markets have received about 6,000,000 bushels each.

A recapitulation of Milwaukee's grain trade last year shows receipts of about 76,000,000 bushels in the aggregate, composed of 13,000,000 bushels of wheat in round numbers, 11,000,000 bushels of corn, 39,000,000 bushels of oats, 10,000,000 bushels of barley and more than 2,000,000 bushels of rye. With nearly 40,000,000 bushels of oats arriving at this market in one year, the importance of oats trade here is clearly evident. Wheat, corn and barley are also important in the trade as well, but not nearly as high as oats.

A summary of various activities in the Milwaukee market at this time shows that the city now has more than 40 firms which receive and sell grain, hay, seeds, etc., on consignment. The elevators of the city have a storage and shipping capacity of about 20,000,000 bushels. The milling capacity for the present consists of about 5,400 barrels of rye and wheat flour per day. The two oatmeal mills in the city have a capacity of about 1,900 barrels a day. The two corn

mills can use up about 7,500,000 bushels of corn annually. A large linseed mill uses much of the flax receipts at Milwaukee, using about 300,000 bushels last year.

Milwaukee grain men rejoiced that the permit system had been abolished and predictions were made that this would be a great stimulus to the trade. Earlier this month the Board of Directors of the Chamber of Commerce sent a telegram to the Railroad Administration at Washington protesting strongly the use of the individual permit system for Milwaukee alone. It was pointed out at that time that this city was as much entitled to the blanket permit plan as Minneapolis. It was found in many instances that the grain shippers of the West would not take the trouble to get the individual permit required for the Milwaukee market, but turned instead to other markets where the blanket permit was allowed.

There was a movement of wheat for some time from Kansas City to Milwaukee because of the large amount of unused elevator room here. It was contended at that time that there was much more room in the Milwaukee elevators so that the individual permit plan, strongly restricting shipments, was not needed. A settlement of this maze of obstacles is now in sight.

An occurrence which had a profound effect on Milwaukee grain men was the death very unexpectedly of Mrs. Margaret J. Bell, wife of one of Milwaukee's best known grain men—Wallace M. Bell. Mrs. Bell was only 55 years old. She had gone to Hot Springs, Ark., for a few days and word of her illness was entirely unlooked for. The fact that she was ill was known by Mr. Bell only for a few hours before the announcement of her death. Mr. and Mrs. Bell had been married 22 years and left one son, Robert Bell.

Mrs. Bell was known especially for her charity work, taking little interest in the foibles of society. She and Mr. Bell took a trip down to the meeting of the National Grain Dealers Association at St. Louis recently and Mrs. Bell went on to Hot Springs, while Mr. Bell came back to the city to take care of his business interests. When she left for the Springs, she was apparently in the best of health. Grain men in Milwaukee and other cities extended their heartfelt sympathy to Mr. Bell. Mr. Bell was president of the Chamber of Commerce some years ago.

Milwaukee railroad officials have notified the grain trade that the total loading of grain and grain products cars in the Northwest during the month of October was in excess of 65,000 as compared with more than 78,000 a year ago. This indicates a drastic cut in grain offerings for various reasons. The corn trade jumped from 3,700 to 3,800 cars, oats dropped from 11,000 to 8,000 cars, wheat dropped from 34,000 to 20,000 cars. Wheat and oats trade is apparently far under the figures a year ago for the month of October.

The figures on grain receipts, specifically for Milwaukee, also bear out the same facts with 660 cars the first week of November composed of 40 cars of corn, 350 cars of oats, 85 cars of wheat, 46 cars of rye and 9 cars of flax. This makes about 660 cars as compared with 819 cars the week before, 854 cars a year ago and 1,374 cars for the same week of 1917.

One of the splendid pieces of unselfish work of the Milwaukee Chamber of Commerce is that of maintaining at Madison at the College of Agriculture several silver cups which are awarded each year for the best grain in various classes and of various kinds. The rye and corn silver cups have just been replaced, the rules providing that when a winner has won a cup three times it is kept by him permanently. The Chamber of Commerce maintains five of these cups at Madison continually, one for each of the principal grains. The authorities of the College of Agriculture report that the competition for these trophies is very keen.

Among the grain men delegated to go to the International Trade Conference at Atlantic City recently were H. W. Ladish, A. K. Taylor and President Harry M. Stratton, who is national counselor of the Chamber of Commerce of the United States.

There is a demand for corn at Milwaukee far exceeding the limited receipts now offered here, the new corn is not moving freely. The market has gone up 20 to 25 cents in the last week. Grain men here point to the small farm stocks as indicating the fundamental scarcity of corn in all parts of the country, with reliance now entirely on the new crop, which is expected to be especially good.

Corrected reports on the crops of Wisconsin show about 7,000,000 bushels of wheat compared with 9,000,000 bushels in round numbers a year ago. The quality of the wheat is very low this year, 61 per cent as compared with 96 per cent a year ago.

The corn crop of Wisconsin is the highest in the history of the state, condition improving up to the very last of the crop year and yield now being estimated at 77,000,000 bushels, a gain of 3,000,000 bushels in 30 days and comparing with 69,000,000 bushels a year ago. Condition of the crop is 97 per cent of

normal as compared with a 10-year average of 78 per cent. Wisconsin corn matured completely without any killing frost setting it back.

The Wisconsin oats crop this year at 77,000,000 bushels is 3,000,000 bushels higher than 30 days ago, but this is far below the great harvest of 110,000,000 bushels in 1918, when the crop was almost perfect. The average yield is 33 bushels this year as compared with 46 bushels a year ago. Quality of the grain is also low, at 79 per cent, as compared with the very high rate of 98 per cent last year.

The final estimate of yield shows barley is a short crop in Wisconsin with weather unfavorable and with discouragement due to the dry wave which cut down the area. The crop this year is only about 15,000,000 bushels as compared with 25,000,000 a year ago. The quality of the grain is down to 82 per cent as compared with 95 per cent last year. The yield was about 27 bushels per acre as compared with 35 bushels in 1918.

The clover seed crop of this state is far above 1918. In fact, it is practically doubled with 197,000 bushels for this season as compared with 101,000 bushels in 1918 and 336,000 bushels in 1917. Compared with two years ago, the present crop is about two-thirds of a yield.

Frank Barry, traffic secretary of the Association of Commerce, recently called attention to some of the glaring errors in the grain traffic situation which are causing great scarcity of box cars. Box cars were taken away from the city, Mr. Barry said, when they were greatly needed here. He also points out that grain should come here for shipment by lake to Buffalo, but this is not done because the United States Wheat Director in New York will not grant the necessary permits. As a result of this Mr. Barry says that thousands of cars have to be utilized to carry grain east which should have been shipped by boat. Mr. Barry makes a special plea for greater use of the lake facilities so that the great car shortage may be eased up materially.

DULUTH S. J. SCHULTE - CORRESPONDENT

THE slow movement of wheat and other grains to this market during the present season is claimed by elevator interests and traders at Duluth to be due in a measure to the structures of freight rates now in force favoring Chicago. Duluth was strongly represented in a hearing on the problem before the Interstate Commerce Commission at Chicago last week. The delegation from here included B. Stockman, president, and Charles F. Macdonald, secretary of the Board of Trade; Earl M. White, M. L. Jenks, D. T. Helm, Francis W. Sullivan, attorney, and F. S. Keiser, secretary of the Duluth Commercial Club's Traffic Commission. At the conclusion of the Chicago hearing, Messrs. Macdonald and Helm went on to New York, where the hearing is being continued by the Commission with the Eastern end of the freight fabric under discussion. Trade interests here are hopeful that a rate will be put into effect that will admit of bringing a proportion of winter wheat to this market from points where the mileage is practically the same. It is pointed out that under the present lineup of the freight rates the great bulk of that wheat has been moved to Chicago this season. That condition is regarded as fairly well illustrated in the fact that stocks of all kinds of grain in the elevators here now stand at less than 9,250,000 bushels, while their storage capacity is approximately 36,000,000 bushels.

Eastern mills have been taking a more lively interest in this market lately in the way of contracting for wheat for delivery before the close of the lake navigation season. It is regarded as worthy of note that the first load of spring wheat was loaded out from the elevators here only on November 1, and that was a small cargo of 188,000 bushels. At this time last year, daily shipments of all the way up to 1,500,000 bushels were quite the ordinary thing.

Trading in rye was active on this market during the last month, and while quotations in the spot article covered a wide range, the net change was only an advance of 2 cents to \$1.36½ for spot as compared with a month ago. Stocks of rye in the elevators here are now approximately 5,900,000 bushels. Considerable of that grain has been sold for export, and it is expected that it will be loaded out from the elevators before the close of the lake navigation season.

For the present crop year, from August 1 last to October 8, receipts of grain at the Head of the Lakes elevators aggregated 15,822,000 bushels compared with 56,721,000 bushels during the same period last year. Receipts of wheat were only a fraction of what they were during the corresponding period last year at 7,324,000 bushels against 48,223,000 bushels. The only grain in which a favorable showing was made in this season was rye, in which the receipts up to Novem-

ber 8 aggregated 5,845,000 bushels, against 4,475,000 bushels last year. The movement of flaxseed was light, amounting to 672,000 bushels, against 1,527,000 bushels last year.

William Dalrymple was a recent visitor on this market from Minneapolis. He said that the indications point to about a normal acreage of wheat and other grain being seeded over the Northwest next year. The big Dalrymple farm in North Dakota will give a good account of itself in the way of crops next season, he hopes.

David S. Stocking of the Tomlinson Company, Duluth vessel agents, returned at the end of last week from a trip to New York and other Eastern points. He expressed himself as pessimistic regarding the development of any special rush in the grain movement during the closing days of the navigation this year from the Head of the Lakes elevators. The congestion is serious at Buffalo, and at the seaboard owing to the long-drawn-out longshoremen's strike at New York, he asserted. Exports have been light, and as a consequence loaded cars have been backed up for considerable distances from shipping points. Charterings of vessel space for early shipment of grain have been far below par, he declared.

B. E. Baker, one of the pioneer traders on this market has returned after an absence of over 18 months in the Southwest, where he was interested in an oil wells proposition. He and a syndicate of Duluth grain men associated with him have disposed of their holdings at a reported handsome profit. Mr. Baker has announced that he proposes to re-enter the grain trade actively as he looks forward to a period of good trading after the relinquishment of wheat control by the Government and foreign exchange conditions return to a normal basis.

The first suspension of any member of the Duluth Board of Trade in years occurred early this month when W. H. Kiichli, trading as the Standard Grain Company, was forced out of business as the result of inability to meet his margin calls on an extended line of short contracts in flaxseed. The market had been going against him for some time owing to the remarkably small receipts for the season, and in the absence of any material quantity of free seed in the elevators. Operators had therefore been finding it impossible to cover their contracts for early deliveries, and the congestion culminated in bulges extending up to 31 cents on November 7. Kiichli was unable to finance the clearing house call for additional margins at the close of the day's session and his suspension was forced. Other failures were avoided through the prompt action of B. Stockman, president of the Board, in issuing a notice that the Board of Directors contemplated making the delivery of Canadian, Southwestern and Argentine flaxseed regular on new contracts, the discounts, if any, to be arranged at the actual difference in their crushing values. Mr. Kiichli was an operator of over 15 years' experience on the Duluth market, and he is receiving the sympathy of a wide circle of business friends.

Duluth traders are looking for a reversal of form in the grain markets next season after the Grain Corporation relinquishes its control over marketing operations in wheat. Though the acreage plowed over the Northwest is conceded to be much smaller than a year ago, owing to the early snow, it is assumed that with favorable weather conditions, the deficiency can easily be made up next spring. It is thought, too, that soil conditions, especially in western North Dakota and Montana, should be immeasurably better on account of the amount of moisture that has fallen during the last few weeks. R. M. White, of the White Grain Company, asserted that he has been in receipt of reports from the West, even from the drought stricken districts, to the effect that farmers are sanguine that better grain growing conditions will prevail next season. In the meantime the demand for feeds has been active over the northern Minnesota districts on account of the large numbers of cattle and sheep that have been brought into them from the West for feeding over the winter.

Elevator and grain men here are taking a deep interest in the campaign being promoted by the Department of Agriculture and the Grain Corporation to eliminate losses and fires through grain dust explosions. A vivid demonstration of the effects of such explosions, and measures to prevent them, was given on the Board of Trade here last week.

Penalties for failures to make deliveries of grain under contracts have been fixed by the Duluth Board of Trade at the following basis: The payment of not less than 3 per cent, nor more than 10 per cent in the case of wheat, rye, barley and oats, and not less than 1 per cent, nor more than 10 per cent in the case of flaxseed (as the committee may deem just and equitable) above the then true commercial or market value of the commodity as determined by the committee. The rule, as adopted by the Board of Trade, stipulates that in case any property contracted for is not delivered at maturity, the president of the Board shall appoint a committee of three from the

membership at large, to be approved by the directors, to determine as nearly as possible the true commercial or market value of the commodity in question on the day of the maturity of the contract, and the price so established shall be the basis on which settlement shall be made.

TOLEDO

H. F. WENDT CORRESPONDENT

THE traffic commissioner of the Toledo Commerce Club, L. G. Macomber, is in New York to take up the fight against present freight rates from Toledo east on ex-lake shipments of grain before the Eastern Rate Committee of the Railroad Administration. Readjustment of Western rates affecting Toledo shippers was sought by Mr. Macomber recently at St. Louis. Toledo shippers claim they have been at a disadvantage because some of the Western rates were not raised along with local rates.

Fred Mayer, president of the Toledo Produce Exchange, spoke before the managers and Board of Directors of the Farmers' Grain Dealers Association of Ohio Monday, November 10, at Sidney, Ohio. His subject was "Why Toledo is the Leading Clover Seed Market of the World."

Joe Jackson, Chicago trader with Pyncheon & Co., was a recent visitor on the floor of the Toledo Produce Exchange.

A golf match, on which the traders claimed betting was brisk, was recently staged between Dave Anderson, of the National Milling Company, and Lester Howard, of H. D. Raddatz & Co., at Inverness Club, the latter winning by a healthy margin.

A. T. Ferrell of A. T. Ferrell & Co., Saginaw, Mich., manufacturers of seed machinery, was a recent visitor on the floor of the Toledo Exchange.

J. E. Benedict, of the Commercial Seed Laboratory, Washington, D. C., is in Toledo for the purpose of establishing a laboratory to determine the purity and germination of seeds for the Toledo Produce Exchange.

The following have recently been elected to membership in the Toledo Produce Exchange: A. J. Burkart and F. R. Cornell, of Pyncheon & Co., Toledo, and E. B. Studevant, of Pyncheon & Co., Chicago.

Toledo grain dealers attending the meeting of the Northwestern Farmers Elevator Association at Jewell, Ohio, recently were: Joe Streicher and Harry Zimmerman, of J. F. Zahm & Co.; George Woodman, of the Rice Grain Company; Kent Keilholtz and Charles Keilholtz, of Southworth & Co.; George Forrester, of E. B. Slawson & Co.; Harry DeVore, of H. W. DeVore & Co.; Fred Wickenhiser, of John Wickenhiser & Co.; and Oliver Randolph, inventor of the Randolph Grain Drier.

EFFICIENT LOADING TO RELIEVE CAR SHORTAGE

Quoting in part from a recent statement of Walker D. Hines, Director General of Railroads, we read:

"During the war no one was more patriotically helpful than the American shipper. With zeal and efficiency he did his part in the common cause.

"The Railroad Administration had excellent opportunity to observe this attitude during the war and has appreciated heartily the subsequent continued co-operation of the great majority of the shippers.

"An unusually heavy grain and coal movement deferred repair and the construction of public highways in all sections of the country and the concentrated requirements of suddenly reviving business combined with the usual transportation requirements at this time of year, threaten a serious lack of transportation facilities unless all parties interested co-operate in securing the greatest possible utility from the existing limited transportation facilities."

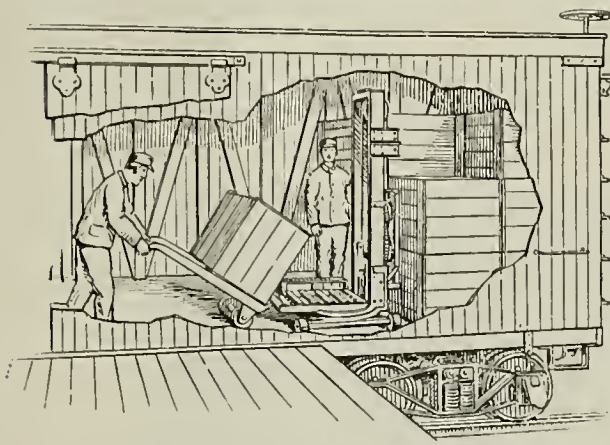
The Car Service Section in Washington has issued instructions to regional directors to lend every effort to speed up road and yard improvements, to secure heavier loading of equipment and has further recommended other practices of freight shipments.

President Wilson has stated that shippers and

receivers of freight can materially help and promote freight car efficiency by loading all cars to full visible or carrying capacity; by prompt loading and release to the carrier; by ordering cars only when actually required and by eliminating the use of railway equipment in trap or transfer service when tonnage can be handled by motor truck or wagon.

The situation may be further helped by reducing the diversion and reconsignment of cars to a minimum and in this way shippers can help by prompt unloading of cars and notice thereof to the carrier; by ordering goods in quantities representing the full safe carrying capacity of cars and disregarding trade units; by ordering from the nearest available source and by pooling orders so as to secure full car load.

Of the foregoing recommendations of the President and the U. S. Railroad Administration none is more important than the complete filling and efficient loading and unloading of freight cars, and the present shortage may be relieved in a great



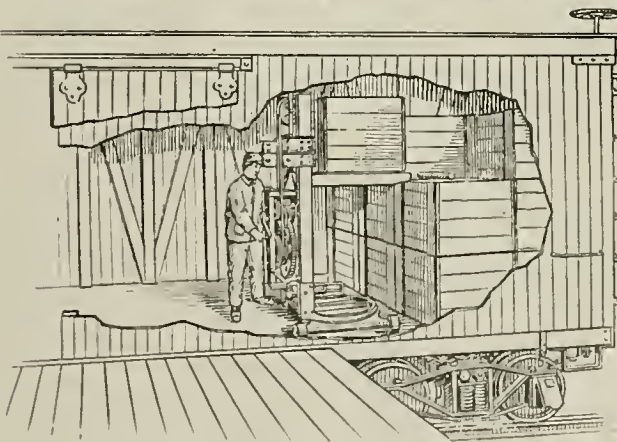
LOADING MACHINE IN POSITION

measure, if shippers will take it upon themselves to immediately look into the matter.

In many instances, manufacturers and forwarders rely upon the man-power method of loading and unloading; which not only consumes a great deal of time and means the employment of much labor, but does not permit the full use of car shortage capacity in loading. Labor reducing and speedy loading and unloading may be accomplished by mechanical means.

There are several "mechanical loaders" or piling and tiering machines manufactured which prove efficient, time and labor saving devices for freight car loading and unloading.

The general construction of these machines or portable elevators, as they are sometimes called, is quite similar, consisting of two uprights and an



MECHANICAL LOADER IN ACTION

elevating platform, although one type in particular has a revolving base which can swing on its own center like a turntable. This type of machine on account of this exclusive feature is known as a Revolver. Bales, barrels or boxes may be thrown on the platform and without changing the position of the machine, it can be swung around toward the pile, raised to the desired height where the load can be easily shoved off onto the top of the pile. In most cases one man can "turn the trick" from placing the load on the platform, raising it by means of a hand crank, to sliding it off on top of the pile. It is used equally well in unloading and "tearing down" piles. These machines are also made in motor-driven types.

By completely using car space and loading to

utmost capacity, along the lines described above, the present shortage of cars can be materially relieved.

SCREENINGS SALES UNDER INVESTIGATION

On November 1 at Winnipeg before Judge Robson, Chairman of Canada's Board of Commerce investigating profiteering, eight of the largest elevators in western Canada were charged with having formed a combination, and selling all their screenings in Chicago and Minneapolis and refusing to sell to Canadian feed firms. All elevator companies charged are said to be controlled by American capital, and high price of milk in Canada, it was stated by Judge Robson, was said to be due to the high cost of cattle feed. Investigations of alleged screenings combine goes on shortly when evidence will be taken from George Reiger, of Minneapolis, U. S. representative, and S. Symes, of Fort William, Canadian grain statistician. Port Arthur Elevator Company, Grand Trunk Elevator Company, Empire Elevator Company, Thunder Bay Elevator Company, Consolidated Elevator Company and Western Elevator Company are charged.

HANDSOME TROPHY FOR BEST CORN

A handsome trophy, costing \$350, will be offered by the American Association of Manufacturers of Corn Products for the best sample of corn exhibited at the International Grain and Hay Show, November 29 to December 6, 1919, at Chicago. This trophy will be awarded annually and the name of the winner will be engraved on the trophy.

The trophy as decided upon will be a large golden ear of corn, set with a silver sheath and mounted on a mahogany base. This will be beautiful in design, attractive and one which merits the strongest competition. Already much rivalry has been exhibited among the corn growers of the various states. Iowa, Illinois, Missouri and Ohio are challenging Indiana, which state has carried off the grand championship in past national shows. The best corn produced in the whole country will be entered in the contest.

Visitors at the Live Stock Exposition will have a chance to see not only the best live stock but the best corn, wheat, oats, rye, barley and hay produced in the United States and Canada.

CANADIAN GRAIN YIELDS AND THEIR VALUES

According to the official estimates the yield of wheat this year will be 248,000,000 bushels, as compared with 189,075,350 bushels in 1918. From recent threshing returns it is evident that the official estimates are approximately 10 per cent over the actual yields but even making due allowance for this, the crop for the whole Dominion will be slightly in excess of that of last year. There is a small falling off in the yield of other grain, but their value on the basis of the present prices will be greater than that of last year. The value of the chief cereal products, wheat, oats, and barley, on the basis of last year's prices is \$829,479,950, for this year's crop as compared with \$790,413,770 for last year's. Taking the grain crop as a whole the realizable value to the producer will be considerably in excess of that of a year ago. The quantity of grain produced in Canada this year is considerably less than in the year 1915, but the value has increased very largely. Fodder crops such as corn, hay and clover, will yield more than in any previous year since the war began. The increase in the volume of tobacco, fibre flax, and linseed grown in Canada, add substantially this year to the value of field crops.

WHEAT from near Calgary, Alberta, examined by Grain Inspector Hill recently, weighed 68 pounds to the bushel and was graded No. 1 hard. The farmer had 129 acres of this wheat, which is of the Marquis variety, and averaged yield was 28 bushels.

ASSOCIATIONS

OHIO GRAIN DEALERS MEET AT COLUMBUS

The fall meeting of the Ohio Grain Dealers Association brought out the usual good attendance at Columbus on Friday, October 31. President O. W. Cook of Columbus, after welcoming the dealers, introduced Dr. H. H. Brown of the Bureau of Chemistry, United States Department of Agriculture, Washington, D. C., who gave a talk, illustrated by moving pictures, on the danger of explosions of grain dust. This lecture was one of a series which is now given in the principal cities in the grain section of the country in an effort to check carelessness which this year has resulted in great loss of life and property from grain dust explosions. Dr. Brown brought out the fact that from March to October of this year five terrific grain blasts had occurred in elevators, killing more than 40 men and injuring 60, entailing a loss of \$8,000,000 and destroying some 3,000,000 bushels of grain and its products. Fireproof plants were not explosion proof. If there was dust in the elevator, and given the proper conditions, an explosion would be the result. It was the design of the Government to create a sentiment that should result in the

E. Stephenson, Rosewood; A. R. Morse, Tiro; H. L. Frisinger, Rockford; J. Y. Stimmel, Payne.

Board of Agriculture, Ohio Agricultural Experiment Station, Ohio State University—C. M. Eikenberry, Hamilton; C. O. Barnhouse, Agosta; A. M. Daugherty, Derby; Philip Horn, Monroeville; W. M. Latham, Hayden; R. W. Lenox, Richwood; A. V. McClure, Eldorado.

Traffic—H. L. Goemann, Mansfield; W. T. Palmer, Celina; F. E. Barker, Hamilton.

RESOLUTIONS ON THE DEATH OF EARL C. BEAR

The following resolutions were passed on the death of Earl C. Bear by rising vote, all remaining standing a moment, in testimony of the esteem and respect held for the departed member:

Whereas, The Supreme Ruler of the Universe, in His infinite wisdom, has seen fit to remove from among us one of our esteemed and worthy members, Earl C. Bear, and

Whereas, The long and intimate relation held with him as a member and officer of this Association makes it eminently befitting that we make record of our love and appreciation of him;

Therefore, Be It Resolved, That the wisdom and ability he has exercised in the aid of our Association by his counsel and service will be held in grateful remembrance;

Resolved, That the removal of such a life from



VICE-PRESIDENT S. B. SWOPE, SECRETARY J. W. McCORD, PRESIDENT O. W. COOK

equipment of every elevator with suction fans and dust collectors so that no dust could accumulate about the plant. As evidence of the special vigilance taken during the war period there was almost two years in which no dust explosions occurred.

Dr. Brown staged an actual demonstration of an explosion by setting off a small quantity of grain dust in a portable model of a grain elevator. The detonation was both loud and sharp and the roof of the elevator was blown to the ceiling. Dr. Brown stated that a carbon electric lamp heats sufficiently to ignite dust, causing an explosion and recommended the use of a vapor proof globe around the electric lamp.

A motion by Secretary McCord was adopted that a vote of thanks be extended to Dr. Brown for his instructive address.

President Cook then read a letter from A. S. Garman of Akron, Ohio, expressing his regret that illness prevented his attendance at the meeting.

The following committees, members of the Governing Board for 1919-20, were announced as follows:

GOVERNING BOARD

Members-at-Large—Fred Mayer, Toledo; J. W. Simmons, Pemberton; E. O. Teegardin, Duvall.

Representing Affiliated Associations—E. T. Custerbender, Sidney, Miami Valley Grain Dealers Association; C. O. Barnhouse, Agosta, Middle Ohio Grain Dealers Association; Edgar W. Thierwechter, Oak Harbor, North-Western Ohio Millers & Grain Dealers Association; C. W. Pontius, Lewisburg, The Darke & Preble County Grain Dealers Association; D. R. Risser, Vaughnsville, North-Western Ohio Grain & Hay Dealers, Producers and Shippers Association.

COMMITTEES

Arbitration—J. H. Motz, Brice; M. A. Silver, West Jefferson; E. W. Scott, Columbus.

Legislative—Charles E. Groce, Circleville; C. K. Patterson, Piketon; E. C. Eikenberry, Camden.

Membership—S. L. Rice, Metamora; F. O. Diver, Middletown; R. W. Graham, Liberty Center; Geo.

among our midst not only leaves a vacancy and a shadow that will be deeply realized by all members of this Association, but will prove a serious loss to his neighbors and many friends as well;

Resolved, That as we extend deep sympathy to the bereaved relatives of the deceased, we are expressing our hope that we receive reconciliation of this loss to us all in the thought that the giving and taking of life emanates only from the hand of Him who doeth all things well; and be it further

Resolved, That a copy of these resolutions be spread upon the records of our Association, and also a copy be forwarded to the bereaved family.

"Life's race well run,
Life's work well done,
Life's crown well won,
Now comes rest."

G. A. Bennett of Grafton, Ohio, presented a form of trade acceptance which he said was now in use by 5,000 large firms. Its design was to take the place of an open account and was an obligation of the acceptor arising out of the purchase of goods from the drawer. It could be made payable in 30, 60 and not exceeding 90 days. The bank held the acceptance, the same as a check and if applied in Ohio, Mr. Bennett stated, it would release some \$5,000,000.

Mr. Eikenberry of Camden did not agree with Mr. Bennett in the use of the trade acceptance. He stated that it would prove an economic evil at the present time as it would tend to inflate our currency. This currency was already inflated at the present time and the use of this acceptance would tend to aggravate the evil. There was quite a difference of opinion over the matter of the use of the acceptance and no action was taken regarding it.

AFTERNOON SESSION

After call to order by President Cook, H. L. Goemann, chairman of the Traffic Committee made his report. He favored giving the Interstate Commerce Commission increased power and expressed the belief that the transportation problems of the country could be best handled by this body, which should consist of 10 members of very high standard and with enlarged powers. He did not favor a traffic board in conjunction with the Interstate Commerce Commission and a vote of the Chambers of Commerce of the country had resulted as

unfavorable to the establishment of such a board.

Mr. Goemann also urged the qualifications of James C. Jeffrey of Chicago to fill the vacancy now existing in the Interstate Commerce Commission. Both of these subjects were embodied in the following resolutions which were unanimously adopted:

Whereas, There has been submitted to the president of the Ohio Grain Dealers Association a communication from the Co-Operative Committee on Railway Legislation regarding enactment by Congress of comprehensive railroad legislation, and

Whereas, said committee favors the creation of a Transportation Board who are to certify to the Interstate Commerce Commission the following principles:

I. A Transportation Board to (a) Determine and require provision of adequate transportation in the effective co-ordination of rail, water and highway facilities. (b) Determine the financial requirements of the carriers. (c) Certify revenue required. (d) Regulate wages and conditions of labor. (e) Exercise final authority over consolidations and security issues.

II. The certificate of the Transportation Board to be mandatory upon the Interstate Commerce Commission as to amount of revenue to be produced.

III. Authority for the Interstate Commerce Commission to regulate maximum as well as minimum rates, with jurisdiction over all rates of instrumentalities of interstate commerce.

IV. Revision of the traffic provisions of the Interstate Commerce Act so as to adapt them to present conditions, with care to avoid unnecessary disturbance of established commercial relations.

V. Statutory requirement of rates adequate for necessary expenses and such return on capital invested, considering average conditions, as will provide a proper credit basis for needed improvements and extensions.

VI. Legislation designed to promote consolidations into strong competing systems.

VII. Early provision for improved service which the Transportation Board may deem essential in the public interest, to be attained through such moderate increases in revenue as will enable the stronger roads to accumulate a surplus, part to be advanced to weaker lines under conditions determined by the Transportation Board for improving facilities and service, and an adequate part to be retained by the road that earns the income as an incentive to economy, efficiency and enterprise.

VIII. Legislation to require that railroad companies and their employees adjust differences without interruption of service.

Whereas, This Association is not in sympathy with creating an additional board to be known as Transportation Board.

Therefore, be it resolved, That it is the sense of this Association that instead of the establishment of this additional Federal Board, that the powers and functions of the Interstate Commerce Commission be enlarged and strengthened and surrounded with such safeguards as is for the best welfare of the public.

Whereas, Mr. James C. Jeffrey has been recommended for the vacancy now existing on the Interstate Commerce Commission and knowing that he is fully qualified to acceptably discharge the duties of commissioner.

Therefore, Be It Resolved, That the Ohio Grain Dealers Association endorse his nomination and appointment to membership to the Interstate Commerce Commission and that copy of this resolution be submitted to the President of the United States.

Secretary McCord brought up the question of arbitration cases which appeared before the Association and said a great many cases were brought before the committee in which not very much was involved. The committee had to take as much care in these cases as in those of large amounts. He urged that these minor cases be settled as largely as possible by the parties interested and to this end recommended that the fee for arbitration before the Association be raised from \$10 to \$20. A motion to this effect was put and so ordered.

A resolution was adopted urging the Philadelphia Grain Exchange to put into service a car report form such as used by other grain exchanges, as follows:

Whereas, Quite a number of complaints have been registered by grain shippers against the Philadelphia Grain Exchange on account of its failure to provide for and issue an adequate car-condition report on their grain shipments to that market, Baltimore and other markets, and

Whereas, In lieu of such reports, when a car of grain arrives at that market, and there has been leakage or loss of seal, the shipper receives only a simple notation to that effect, and much time is consumed in asking for and receiving the detailed information regarding the condition of such cars, so necessary in filing claims:

Therefore, Be It Resolved, That it is the sense of this Association that the Philadelphia Grain Exchange should, without delay, create, adopt and put into service a car report form such as is used by other grain exchanges.

Col. C. E. Groce moved that the Association endorse the resolution passed by the Grain Dealers National Association in convention at St. Louis looking to the passage of an amendment to the Revenue Act that would exempt from transportation tax, the inland movement of grain from the shipping point from which it is consigned on the bill of lading to any export elevator, and concerning which, declaration is made on the bill of lading by the shipper that the grain is for export; such amendment to further provide that the exemption so obtained shall not in any manner be precluded by the necessary suspended movement, sale, temporary storage, or grading necessary in conformity with the United States Grain Standards Act at the port of export before final delivery to the vessel. The motion was seconded and carried.

President Cook then asked for reports on condition of the corn crop with a number of dealers responding as follows:

Philip Horn, Monroeville: We have taken in about 258,000 pounds of new corn averaging about 71 pounds to the bushel and 23 per cent of moisture, which we dried down to 14 per cent. We paid \$1.35 per 100 pounds.

John McDonald, Washington C. H.: We have

November 15, 1919

taken in 5,000 bushels of fine quality and 23 to 27 per cent moisture. We paid \$1.00 per 70 pounds and dried down to 15½ per cent.

W. P. Sallady, Asheville: We have taken in about 1,500 bushels. Moisture runs from 23 to 28 per cent.

R. G. Risser, Vaughnesville: We have bought no corn as yet.

H. G. Pollock, Middlepoint: We have had a very dry season and better than an average crop. Corn about 26 to 27 per cent moisture. We are paying \$1.25 to \$1.40 per 100 pounds.

C. E. Groce, Circleville: Have bought no corn. Moisture content from 25 to 29 per cent.

E. C. Custenborder, Sidney: Shelby County has the best crop of corn in several years. Have taken in but little corn and shipped none. Are paying \$1.40 per 100 pounds.

Rea Chenoweth, London, J. H. Motz of Brice and E. O. Teegarden of Duvall reported they had taken in no corn.

Mr. Custenborder said in his section they were making a difference of three cents between mixed and yellow corn.

Mr. Pollock said the farmers now fed their mixed corn as he had not seen a car of mixed corn in Van Wert County.

C. O. Barnhouse, Agosta: We have taken in about 500 bushels of new corn which has run from 18 to 19 per cent moisture.

F. E. Watkins of Cleveland said the growing of mixed corn should be discouraged in every manner possible.

Mr. Park of the Ohio State University called attention to Farmers Week in January and the Ohio Corn Show in connection. He said they were trying to discourage the growing of larger ears of corn and giving preference to sound, well matured ears. They had several instances of over 100 bushels of corn raised on plots of 10 acres.

H. C. Dehring of Curtice advocated the growing of a corn with deep kernel and small cob. If we grow the smaller variety, he said, we can accomplish more than by growing the big ears.

Secretary McCord moved that the Association offer a trophy as a premium in the 1920 Corn Show. The motion was carried and the meeting then adjourned.

ASSOCIATE MEMBERS

The following associate members and visitors were present:

E. H. Beer of Chas. England & Co., Baltimore, Md.

Henry M. Brouse of Brouse-Skidmore Grain Company, Cincinnati, Ohio.

J. J. Rammacher of Eastern Mill, Grain and Elevator Corporation; F. J. Schonhart and C. A. Bartow of Electric Grain & Elevator Company; H. C. Shaw of Taylor & Bourne Company; E. E. McConnell of McConnell Grain Corporation; M. Purcell of Armour Grain Company; F. J. Maurer; E. L. Riley; H. F. Keitsch of Pratt & Co., Buffalo, N. Y.

F. E. Watkins of Cleveland Grain Company; H. M. Strauss; F. C. Cain, Cleveland, Ohio.

Fred Mayer and W. W. Cummings of J. F. Zahm & Co.; J. L. Doering of Southworth & Co.; Geo. D. Woodman of Rice Grain Company; G. R. Forrester of the Earl B. Slawson Company, Toledo, Ohio.

W. B. Sutton, representing Huntley Manufacturing Company, Silver Creek, N. Y.

NEW NATIONAL COMMITTEES

President Goodrich of the National Association has appointed the following committees to serve during the coming year:

Arbitration Appeals Committee: Elmer Hutchinson, chairman, Arlington, Ind.; E. M. Combs, care J. C. Shaffer & Co., Chicago, Ill.; A. L. Scott, Pittsburg, Kan.; John S. Green, care H. Verhoeff & Co., Louisville, Ky.; E. C. Eikenberry, Camden, Ohio.

Arbitration Committee No. 1: C. D. Sturtevant, chairman, care Trans-Mississippi Grain Company, Omaha, Neb.; Geo. P. Bissell, care T. B. Hord Grain Company, Central City, Neb.; J. R. Murrell, Jr., care King-Wilder Grain Company, Cedar Rapids, Iowa.

Arbitration Committee No. 2: R. A. Schuster, chairman, care Rosenbaum Brothers, Chicago, Ill.; Wallace Reimann, care Wm. Nading Grain Company, Shelbyville, Ind.; Frank B. Bell, care W. M. Bell & Co., Mitchell Building, Milwaukee, Wis.

Arbitration Committee No. 3: S. L. Rice, chairman, Metamora, Ohio; F. A. Coles, Middletown, Conn.; Thos. C. Craft, Jr., care Baltimore Grain Company, Baltimore, Md.

Committee on Legislation: A. E. Reynolds, chairman, Crawfordsville, Ind.; Charles England, Chamber of Commerce, Baltimore, Md.; H. W. Robinson, care Union Elevator Company, Cleveland, Ohio; Lee G. Metcalf, Iliopolis, Ill.; L. W. Powell, care Wichita Terminal Elevator Company, Wichita, Kan.

Committee on Trade Rules: F. E. Watkins, chairman, care Cleveland Grain Company, Cleveland, Ohio; F. A. Derby, Topeka, Kan.; Douglas W. King, Fort Worth, Texas; John E. Collins, care Collins & Co., Cincinnati, Ohio; Paul R. Trigg, Bozeman, Mont.

Committee on Transportation: Henry L. Goemann, chairman, Mansfield, Ohio; G. Stewart Henderson, Chamber of Commerce, Baltimore, Md.; Leslie F. Gates, care Lamson Bros. & Co., Chicago, Ill.; Roger P. Annin, St. Louis, Mo.; G. F. Ewe, care Van Dusen-Harrington Company, Minneapolis, Minn.

Committee on Natural Shrinkage: Henry L. Goemann, chairman, Mansfield, Ohio; M. U. Norton, Mexico, Mo.; H. B. Dorsey, Fort Worth, Texas.

Merchant Marine Committee: L. W. Forbell, Produce Exchange, New York, N. Y.; W. M. Richardson, The Bourse, Philadelphia, Pa.; R. J. Barr, 922 Gravier Street, New Orleans, La.

Telephone and Telegraph Service: Geo. H. Davis, chairman, Board of Trade, Kansas City, Mo.; F. G. Horner, Lawrenceville, Ill.; E. Bossemeyer, Jr., Superior, Neb.; Fred Mayer, Toledo, Ohio; A. A. Ryer, Seattle, Wash.

Committee on Membership: Alex W. Kay, chairman, care Hales & Edwards Company, Chicago, Ill.; D. M. Cash, care Urmonston Grain Company, Indianapolis, Ind.; C. F. Beardsley, St. Louis, Mo.; John C. Bennett, Nashville, Tenn.; E. F. Huber, care McCaull-Dinsmore Company, Minneapolis, Minn.

Committee on Uniform Grades: C. T. Doorty, chairman, Chamber of Commerce, Buffalo, N. Y.; C. H. Blanke, care Blair Elevator Company, Atchison, Kan.; C. E. Groce, Circleville, Ohio; O. J. Thompson, Kokomo, Ind.; E. M. Wayne, Delavan, Ill.; W. W. Pollock, Mexico, Mo.; J. H. Shaw, Enid, Okla.; J. N. Beasley, Amarillo, Texas; Lee Davis, Scranton, Iowa; W. A. Cutler, Adrian, Mich.; T. A. Fransoli, Seattle, Wash.; J. R. Swift, Lewistown, Mont.; H. A. Shepherdson, Flour Exchange, Minneapolis, Minn.; J. A. Manger, Chamber of Commerce, Baltimore, Md.; B. F. Schwartz, Produce Exchange, New York, N. Y.

Committee on Crop Reports: W. S. Washer, chairman, Atchison, Kan.; W. T. Palmer, Celina, Ohio; Tom F. Connally, Clarendon, Texas; C. C. Twist, Rochester, Ill.; J. L. Barr, care F. C. Ayres Mercantile Company, Denver, Colo.; Wm. C. Hayward, care Hayward-Rich Grain Company, Indianapolis, Ind.; Aubrey Hawkins, Richmond, Va.; J. B. McClure, Hutchison, Kan.; M. G. Russi, Portland, Ore.; C. E. Robinson, Salina, Kan.; Kenton D. Keilholtz, Toledo, Ohio.

Hay and Grain Joint Committee: W. H. Toberman, chairman, St. Louis, Mo.; Chas. C. Ramey, Produce Exchange, New York, N. Y.; C. A. Foster, Wabash Terminal Building, Pittsburgh, Pa.

Committee on Demurrage: Seth Catlin, Jr., chairman, Chamber of Commerce, Boston, Mass.; Robert Morris, The Bourse, Philadelphia, Pa.; John B. Yeager, Wilkes-Barre, Pa.

Feed and Grain Joint Committee: A. W. Goodnow, chairman, care Park & Pollard Company, Boston, Mass.; Clarence Woolman, care Hales & Edwards Company, Chicago, Ill.; L. P. Nellis, care Nellis-Witter Grain & Milling Company, Kansas City, Mo.; M. F. Baringer, The Bourse, Philadelphia, Pa.; Joseph Wade, care John Wade & Sons, Memphis, Tenn.

International Relations Committee: Joseph Quintal, chairman, care Quintal & Lynch, Limited, Montreal, Canada; T. P. Harcourt, Royal Bank Building, Toronto, Canada; J. L. Sanschagrin, Three Rivers, Quebec, Canada; H. N. Sager, care J. H. Dole & Co., Chicago, Ill.; E. C. Eikenberry, Camden, Ohio; Jas. W. Sale, Bluffton, Ind.

Milling and Grain Joint Committee: Fred J. Lingham, chairman, care Federal Milling Company, Lockport, N. Y.; Chas. Jenkins, Noblesville, Ind.; Chas. G. Irey, care Russell-Miller Milling Company, Minneapolis, Minn.; Thad L. Hoffman, care the Kansas Flour Mills Company, Wichita, Kan.; J. B. McLemore, secretary, Southeastern Millers Association, Nashville, Tenn.

Committee on Rejected Applications: H. E. Botsford, care H. C. Carson & Co., Detroit, Mich.; S. C. Armstrong, care Milwaukee Elevator & Grain Company, Seattle, Wash.; A. S. Macdonald, Boston, Mass.

WEIGHMASTERS TAKE IMPORTANT STEPS

At the meeting of Weighmasters and Scalemen at St. Louis last month, presided over by H. A. Foss of Chicago, the following report of the Committee on Scale Testing was adopted, these now constituting the rules by which scales shall hereafter be tested:

1. The standard of mass for testing grain scales shall be derived from primary weights, verified by the United States Bureau of Standards, Washington, D. C., to within what is known as their "Class B" tolerance.

2. The 50-pound secondary or working cast-iron weights used directly in testing scales should be of such design as to facilitate stacking; they shall be free from pockets, blow-holes, etc., which are liable to catch and hold foreign matter.

3. These weights shall be tested and adjusted in comparison with the master weight, which has been verified to within "Class B" tolerance. The working weights shall be adjusted to within 10 grains and maintained to within 25 grains of their true value.

4. "Standard" counterpoise weights shall be used for testing leverage ratio and the graduation value of poises.

5. All hopper scales shall be tested with standard test weights to at least 8 per cent of their maximum capacity, and these weights are to be used in even multiples of 1,000 pounds. For individual corner tests, at least one-fourth of the respective test loads specified shall be used.

6. In addition to the above test, a load test shall be made to determine if any interference occurs between the fixed and movable parts of the scale, and to discover any weakness due to yielding in supporting structures, etc., by filling scale hopper with grain to an amount equal to the maximum load weighed, less the amount of test weights used. The sensibility reciprocal shall be obtained under this maximum load for comparison with that shown under test with test weights alone, or when the scale is empty.

7. All scales, whether new, repaired, or rebuilt, shall be tested prior to being put in service.

8. All scales in service shall be tested at least twice each year.

9. Whenever possible, facilities shall be provided to apply the weights on the corner test so that the center of gravity of the standard test load will be in a vertical line that passes through, or very near, the centers of the main bearings. As to all new construction, means must always be provided to meet the above disposition of test weights.

10. Scales shall be kept in the closest practical adjustment and shall be considered inaccurate when they cannot be maintained in adjustment to within the tolerance for ratio given in the following table, which corresponds to a tolerance of within one-fourth pound per 1,000 pounds:

Capacity of Scale in Pounds	Greatest Error Allowed in Excess or Deficiency ¾ pounds
3,000	1½ "
6,000	3 "
12,000	3 "
16,000	3½ "
24,000	6 "
36,000	9 "
48,000	12 "
60,000	15 "
84,000	21 "
96,000	24 "
120,000	30 "

11. In a scale provided with a trig-loop, the sensibility reciprocal is the added weight required to be placed upon the platform to move the beam from a horizontal position in the middle of the trig-loop to a position of equilibrium at the top of the loop. This

may be determined by subtracting the weight, instead of adding it.

12. The sensibility reciprocal shall never exceed the amount given in the following table:

Capacity in Pounds	Sensibility Reciprocal	Capacity in Pounds	Sensibility Reciprocal
3,000	1 pound	48,000	10 "
9,000	2 pounds	60,000	12 "
12,000	3 "	72,000	13 "
18,000	4 "	84,000	14 "
24,000	5 "	96,000	15 "
30,000	6 "	120,000 & up	15 "

Track Scales

1. All scales should be tested with a load equal to the maximum load weighed.

2. Railroad track scales used for weighing grain should be maintained so that when a test load, consisting of a one-truck short wheel base test car standardized on a master scale, is used, the largest algebraic mean of any two errors found for any two positions of the test truck shall not exceed 1/20 of 1 per cent, or one-half pound per 1,000 pounds of test load applied, provided, however, that no two errors shall be selected corresponding to positions of the test truck equal to or closer together than the distance between the sections of the scale. Moreover, the scale shall be corrected when it is found, on test, that the error exceeds 1/20 of 1 per cent of the load applied, for any position of the test load on the scale. The manufacturers' tolerances on new scales shall be one-half of the above values.

3. Where railroad track scales are tested with standard test weight, at least 8 per cent of the capacity shall be used, and these weights shall be used in multiples of 1,000 pounds, and the entire test weight load shall be placed on each section of the scale.

4. All scales shall be kept in the closest practical adjustment and shall be considered inaccurate when they cannot be adjusted and such adjustment maintained to within the tolerances for ratio given above.

5. The sensibility reciprocal shall never exceed 40 pounds.

6. All scales in service shall be tested at least twice each year.

The Function of Dust Collectors

W. E. Thompson, supervisor of scales for the Railroad and Warehouse Commission of the State of Minnesota, read an illustrated paper on "Dust Collectors and Their Functions" which follows:

As a main basic statement, dust collectors, whether called suction systems or dust collection systems or by whatever name they may be termed, have but one function, viz.: the collection of dust or finely ground particles of substances floating in the air. By a subdivision we could say that the function of collecting dust might be considered from two main standpoints, at least so far as the general consideration of this topic is concerned by those interested in grain elevators and flour or feed mills.

First, the function of the system operated as a reduction of the fire hazard;

Second, the safeguarding of human life and bettering the working conditions. It goes without saying that both of these features are very potent reasons for the requirement of dust collecting systems in grain elevators and mills.

The principle upon which many of these devices have been worked out seems to be the movement of a small volume of air under a high velocity, not having regard for the very light character of the objectionable particles to be moved. The dust collection system, or pneumatic system, for conveying finely ground feeds from a grinding machine to a sacking bin or cyclone collector; or the collection of emery dust or grindings of a heavy character from grinding wheels, necessitates a high velocity of air movement, confined in as small a volume as may be possible; but generally speaking, the removal of the objectionable floating dust found in grain elevators and mills can be accomplished and should be worked upon the principle of moving a large volume of air under a low velocity.

Confining the discussion to this phase of dust collection systems, it has been our observation that even though elevators and mills are equipped to some extent, the equipment has usually been inadequate and houses so equipped are repeatedly found in a dirty condition. This may be overcome to a large degree if not almost entirely corrected by the installation of larger aspiration pipes, to the ends of which may be attached bell or funnel shaped hoods, left open, extending downward, and so placed that falling grain streams throw their largest volume of dust into the air immediately under them. A good illustration of this would be the delivery of grain from a scale hopper to the bin floor, or to a conveyor belt, in which case the greater portion of the rising dust would be quickly eliminated.

From the scale inspector's standpoint, and from the weighmaster's standpoint, a hidden or a directly attached suction pipe connected to any receiving pit, receiving leg, the head thereof, the garner of the scale or its hopper, is objectionable. It is true the speed of the fan could be regulated, but the objection is that it is a direct suction, placed in a hidden manner, and neither the scale inspector or the weigher in charge of the scale, knows how much or how little any one of the pipes is deducting from the load to be weighed; and worst of all, thus connected they do not take away the floating dust. This objectionable feature can be overcome by making such suction in-direct; or in other words cutting them so that their operations may readily be seen.

In the receipt of grain there are many elements of dust prevention, or what might be better termed, elements to prevent the escape of dust from its natural course with the grain, that might be considered, and if the appliances all along the line to the point of taking the weight are all carefully and correctly put in place, there will be little escaping dust. It is the escaping dust that needs collection.

After the weight has been taken on received grain there is more need for dust collection from the handling of that grain in an elevator than there is up to the point of taking the weight. This subject is largely a matter of detail and if the details are neglected, the result will be the escape of dust all along the line. Please hear with me in the consideration of some of the details of a scheme to better confine dust with the moving stream of grain and, therefore, to keep it from escaping into the elevator.

Starting with the scale hopper; this should be sufficiently tight of itself, not only so that grain will not leak from it, but that dust will not be forced out through its sides.

Second, it should be provided with an adequate air vent to relieve the pressure on the air it contains as the grain is dropped from the garner into it. The cross section area should approximate 40 to 50 per cent of the area of the garner openings or gates. The grain coming down from the garner into the scale hopper necessarily must replace the air that is in the

scale hopper. This air must find a ready point of escape or it will force the dust out onto the weighing floor.

The third element is a proper application of the canvas or curtain, which should be hung from the garner, suspended plumb inside of the four sides of the scale hopper. To prevent the bulging of this canvas by the in-flow of the grain from the garner, baffle strips of a triangular shape, applied properly and in the proper place on the inside of the four walls of the scale hopper, will deflect the air currents and give direction toward the vent.

Next and a very important part of the air vent is the valve or hinged cover of such a vent, which finds its top in the top of the garner. This valve must be carefully made and of a light material, hung almost in a perpendicular position, so that gravity will close it. Thus applied it will function properly.

The garner floor is frequently dusty because of defects in garner construction. When the leg delivers to the garner it is continually pumping air into it with the grain. This current of air, plus the agitation made by the over-throw of the grain, sends up clouds of dust inside of the garner, which must find a vent.

After considerable number of experiments, our conclusion is that the most economical vent is a connection of the garner with the back leg at a point at the top of the garner well above the capacity grain line. This vent should have the same cross section area as the back leg and should be provided with a panel made to open for examination and for cleaning. Probably the angle of pitch should be 45 degrees or greater. The action is automatic because of the downward flow of the empty cups in the leg well creating a downward flow of air, the velocity of the flow of air depending upon the speed of the leg. This method of venting the garner, if all other vents are closed, will be found satisfactory and will keep the garner floor free from dust, if the garner is properly constructed and if the head of the leg is as tight as it should be.

The application of a dust collection system to the boot: This is objectionable for the reason that usually it is a hidden appliance and hence open to suspicion. Repeated investigations have disclosed that where such pipes have been installed, they are usually over the boot pulleys and in a large proportion of the cases investigated, it was found that these pipes were clogged and hence were not performing their functions.

Houses were repeatedly found with basements dirty, due to the fact that even while this device was in operation, it was not doing the work that was expected of it, either by the fire underwriters or by those seeking to safeguard the health of the employees. This may be corrected by applying the indirect method, or in other words cutting the suction pipe from over the boot pulley and extending the pipe by making a forked branch, or Y, leaving the ends open and made funnel shaped, to collect the dust from the boot pan which escapes from the boot and the leg; which really after all is the objectionable feature that is to be overcome. The dust that is confined with the moving grain is not the dust that causes the anxiety. No elevator or mill need be dirty, if a sufficient number and proper sized dust collection pipes or aspirators are properly placed and properly installed.

Going a trifle more into detail and following closely the sketch, the air vent from the hopper speaks for itself, but the detail of the valve "C," which is hinged at the top, should be discussed. This valve should be made of very light, thin wood, covered with canvas, the canvas extending far enough up on the upper edge to form a hinge.

The canvas or curtains which hang from the garner should be suspended so as to drop to the top of the upper edge of the triangular baffle strip or possibly extend down onto the strip just a trifle. They must not be fastened to the hopper. These triangular baffle strips, we find, are preferably made from a 4x4, which should be surfaced on four sides and then cut on a diagonal. These baffle strips may be either nailed, screwed or bolted to the four inside walls of the scale hopper and at a point above the normal grain line for the full capacity of the hopper, which usually is figured on a wheat bushel basis; if coarse grain is used, due consideration to the weight thereof and consequently to the hopper load should be given in placing these strips.

Resolutions Adopted

1. Resolved: That there shall be no open garner or scale bin openings, or openings to roof from same, or any connection with any dust collecting system before weighing of grain, and be it

Further Resolved: That the chairman appoint a committee of six to investigate Mr. W. E. Thompson's

report, also various methods to prevent fire and explosion hazards, and to meet with a joint committee on Docket 9009, "Architects and Elevator Builders."

2. Resolved: That hopper scales should be as near carload capacity as the physical conditions of the elevator will permit.

3. Resolved: That the slope of the bottom of all receiving garner be not less than 40 degrees at any point or plane, and that the smallest dimension of any garner opening shall not be less than 10 inches.

4. Resolved: That even draft weighing is conducive to error, and that the practice should be discouraged by weighmasters everywhere.

5. Resolved: That it is the duty of the unloaders to sweep each car clean of all grain; and, further, that it is incumbent upon the supervising weighing department to insist that such sweeping shall be well and thoroughly done at the unloading sinks; and that where the unloaders of bulk grain do not sweep the cars clean, thereby necessitating the after-sweeping of such cars in adjacent railroad yards, such after-sweeping should be done at the expense of such unloaders; and that the grain so swept from such cars should be credited to the cars from which it was swept.

6. Whereas, registering beams, not automatic, are of material value in verifying the reading and recording of weights, therefore be it

Resolved, That terminal weighmasters should do all in their power to encourage the installation of registering beams on scales now in use, and require their installation on all new scales installed.

7. Resolved: That it is the sense of this conference that posted elevators should be required in all new construction, and be it further

Resolved: That where the cribbing of unposted elevators is of such character and construction that alignment of scales and their accuracy cannot be maintained, the posting of such elevators is essential.

8. Resolved: That loading spouts from hopper scales to car, that are not welled in, any part of which run through elevator bins, should be tested at least twice each year or oftener to detect possible defects therein, and to insure grain tight spouts.

9. Resolved: That in the opinion of this conference, elevators of man-lifts in grain warehouses and mills for the use of employees and others, whose duties require their presence in the cupolas of the elevators, would pay for themselves by increasing the efficiency of the men and operation of the plants.

10. Resolved: That it is a waste of time to attend this and similar conferences, to talk about improvements in terminal grain weighing service, agree on the needs of such service, and adopt resolutions accordingly, if the terminal weighmasters do not go home resolved to act in accordance with such conclusions.

FRIENDS OF THE HORSE ORGANIZE

Regular readers of this journal will remember that we made brief allusion in our last issue to the inauguration of a campaign among members of the hay and grain trade in New York City to stimulate a more extensive use of horses, and it is with much gratification that we are able to report that this campaign has already made decidedly satisfactory progress. It has spread to all parts of the country and expanded so as to include 24 lines of business directly identified with the development and use of the horse. In response to the invitation of the originators of the idea, over 600 delegates assembled at the Hotel Pennsylvania on the morning of October 30. The name selected for the organization was The Horse Publicity Association of America, Inc., and in order to get things started the following temporary officers were named: Fred. M. Williams, temporary chairman; Leonard Gibson, secretary; Thomas M. Blake, treasurer; Louis G. Leverich, chairman Grain Committee; H. K. Palmer, chairman Feed Manufacturers Committee; S. A. Vrooman, chairman New York Hay Exchange Committee; Wm. Ladew, chairman Retail Hay & Grain Committee; H. S. Lockwood, chairman Committee on Publicity.

Fred. M. Williams, who called the meeting to order and announced the committee appointments, spoke briefly at both morning and afternoon ses-

sions. He said in part: "In answer to inquiries as to the object, aims, and expectations of the Horse Publicity Association we say that it was incorporated in response to the constantly increasing demand that some attention be given to the horse. The world-wide campaign in the interest of motor-driven vehicles and the fabulous sums expended in advertising by manufacturers and dealers have held public attention and seemed to sway the judgment of men. As a result the horse has been forgotten or neglected.

"One of the objects of the Association is to see to it that the public highways are so constructed as to afford safe and adequate roadways for horse-drawn vehicles. As you know, the roads now being constructed at public expense are almost worthless so far as the horse is concerned. Legislators seem to think they have performed their full duty when they have provided a smooth, hard, narrow strip or race-course for the automobile. Under certain weather conditions it is impossible for the horse to pull a load over these roads.

"Other objects of this Association are: To encourage the breeding and use of the horse by showing the economic advantage of the horse in local transportation in cities and on the farm; to impress upon the public mind the value of the horse as a factor in the development and progress of our country; to save from neglect and extinction the noble animal which has been man's truest and most useful friend, and which is to-day one of the nation's greatest producers of wealth. The magnitude of the interests which are centered in the horse is little understood and rarely considered. The loss to humanity that the extinction of the horse would involve would be overwhelming and irreparable. The blow to business and agriculture would be staggering."

George C. White, Jr., who was an agent of the remount service of the U. S. Army in France stated that the cavalry horse situation is extremely serious. How to get the farmer interested in breeding and raising the cavalry horse is a big problem. The average price paid by the Government has been \$165 and no farmer can afford to raise and develop that type of horse to the age of five or six years at a cost of more than \$200 and then sell it for \$165. The only answer is that we must pay the farmer more. Mr. White said that the best selling animals in France to-day are those that bear the brand of the U. S. Army. Great Percherons were sold at auction for \$500 to \$600, and small mules brought as high as \$100.

Dr. George M. Rommel of the Department of Agriculture said that there are now more horses in the United States than ever before; that prices are about the same as five years ago; and good horses are very difficult to obtain. In Boston and other Eastern cities, but especially in Chicago, he has noticed a strong tendency to return to horse trucking for short hauls. He thought the economic law would soon take care of that in favor of the horse. In his judgment horse-drawn vehicles are less expensive than motors where hauls are short and stops are frequent, but beyond the zone of the horse the motor becomes an economic necessity. He said the biggest experiment ever attempted to motorize an entire institution was made by our Army in France, but it was found that the horse was unique in the character of his performance and was therefore indispensable.

Other speakers were Dr. W. W. Yard of the



THOSE IN ATTENDANCE AT HORSE PUBLICITY BANQUET

THE AMERICAN ELEVATOR AND GRAIN TRADE

RECEIPTS AND SHIPMENTS

Following are the receipts and shipments of grain, etc., at the leading terminal markets in the United States for the month of October:

BALTIMORE—Reported by Jas. B. Hesson, secretary of the Chamber of Commerce:

	Receipts		Shipments	
	1919	1918	1919	1918
Wheat, bus...	1,690,226	3,863,920	1,321,151	5,263,198
Corn, bus...	148,182	111,100	98	36,566
Oats, bus...	203,568	788,631	195,422	247,420
Barley, bus...	38,023	35,331	197,277	.....
Rye, bus...	156,452	281,955	125,666	5,202
Hay, tons...	2,762	2,376	619	1,221
Flour, bbls...	524,772	280,694	18,533	40,330

CHICAGO—Reported by John R. Mauff, secretary of the Board of Trade:

	Receipts		Shipments	
	1919	1918	1919	1918
Wheat, bus...	9,191,000	6,279,000	5,507,000	3,484,000
Corn, bus...	4,802,000	11,550,000	3,076,000	5,084,000
Oats, bus...	9,385,000	10,942,000	7,863,000	6,914,000
Barley, bus...	1,010,000	2,401,000	527,000	291,000
Rye, bus...	439,000	344,000	105,000	749,000
Timothy Seed, lbs.	6,124,000	5,175,000	3,142,000	2,674,000
Clover Seed, lbs.	1,816,000	1,597,000	386,000	527,000
Other Grass Seed, lbs.	2,432,000	5,187,000	1,083,000	567,000
Flax Seed, bus.	90,000	62,000	.....	.....
Broom Corn, lbs.	3,575,000	3,642,000	3,019,000	708,000
Hay, tons...	19,288	27,034	2,414	9,359
Flour, bbls...	1,190,000	995,000	790,000	553,000

CINCINNATI—Reported by D. J. Schuh, executive-secretary of the Cincinnati Grain and Hay Exchange:

	Receipts		Shipments	
	1919	1918	1919	1918
Wheat, bus...	371,950	295,625	308,525	282,725
Corn, bus...	169,400	279,400	138,600	188,100
Oats, bus...	270,400	508,800	105,600	254,400
Barley, bus...	18,750	.....	.....	.....
Rye, bus...	31,900	48,400	14,300	37,400
Feed, tons...	2,700	3,540	.....	.....
Bar Corn, bus.	21,000	7,000	.....	.....
Hay, tons...	7,898	10,989	.....	.....

CLEVELAND—Reported by F. H. Baer, traffic commissioner of the Chamber of Commerce:

	Receipts		Shipments	
	1919	1918	1919	1918
Wheat—				
Lake, bus...	175,000	107,500	.....	.....
R. R. bus...	128,943	412,576	30,288	14,495
Corn, bus...	109,757	206,847	32,737	15,464
Oats, bus...	383,945	568,011	83,118	300,449
Barley, bus...	13,132	9,448	2,900	.....
Rye, bus...	5,627	7,630	.....	3,982
Hay—				
Lake, tons...	.....	3,449	.....	.....
R. R. tons...	3,628	73,354	38	.....

DULUTH—Reported by Chas. F. MacDonald, secretary of the Board of Trade:

	Receipts		Shipments	
	1919	1918	1919	1918
Wheat, bus...	3,803,902	24,036,550	1,132,240	16,162,535
Corn, bus...	801	.....	.....	11,726
Oats, bus...	59,869	641,979	34,220	475,654
Barley, bus...	483,695	633,037	414,321	383,006
Rye, bus...	1,994,740	2,833,281	410,500	2,577,957
Flax Seed, bus.	313,522	1,096,506	249,516	619,454
Flour, bbls...	.....	.....	.....	.....
Produced ..	127,315	135,020	.....	.....
Receipts ..	916,200	843,400	1,103,550	857,015

INDIANAPOLIS—Reported by Wm. H. Howard, secretary of the Board of Trade:

	Receipts		Shipments	
	1919	1918	1919	1918
Wheat, bus...	461,250	391,250	197,500	106,250
Corn, bus...	1,201,250	1,868,750	830,000	857,500
Oats, bus...	1,062,000	1,548,000	990,000	662,400
Rye, bus...	60,000	167,500	23,750	137,500
Hay, cars...	.....	138	.....	.....

KANSAS CITY—Reported by E. D. Bigelow, secretary of the Board of Trade:

	Receipts		Shipments	
	1919	1918	1919	1918
Wheat, bus...	6,056,100	4,297,000	5,699,700	1,034,100
Corn, bus...	495,000	1,195,000	237,500	911,259
Oats, bus...	793,900	890,800	559,500	1,218,000
Barley, bus...	84,000	354,000	67,600	67,600
Rye, bus...	59,400	20,900	6,600	2,200
Hay, tons...	38,952	15,540	12,336	17,904
Flour, bbls...	130,325	52,975	444,600	249,925

MILWAUKEE—Reported by H. A. Plumb, secretary of the Chamber of Commerce:

	Receipts		Shipments	
	1919	1918	1919	1918
Wheat, bus...	954,000	2,497,000	168,906	1,817,727
Corn, bus...	176,770	570,840	472,030	209,451
Oats, bus...	3,051,910	6,008,890	1,903,691	2,936,216
Barley, bus...	1,116,270	1,381,510	154,770	456,803
Rye, bus...	288,250	348,925	183,500	99,000
Timothy Seed, lbs.	21,436	341,388	676,326	459,494
Clover Seed, lbs.	707,306	234,517	391,858	497,088
Malt, bus...	62,700	1,081,168	545,894	420,480
Flax Seed, lbs.	34,320	21,140	1,320	.....
Feed, tons...	8,903	3,206	26,821	20,048
Hay, tons...	2,049	229	199	348
Flour, bbls...	97,490	91,620	133,452	216,975

NEW ORLEANS—Reported by Geo. S. Colby, chief grain inspector of the Board of Trade, Ltd.:

	Receipts		Shipments	
	1919	1918	1919	1918
Wheat, bus...	67,200	1,616,608
Corn, bus...	76,450	.....
Oats, bus...	516,665	1,150,830
Barley, bus...	812,248	.....

NEW YORK CITY—Reported by H. Heinzer, statistician of the Produce Exchange:

	Receipts		Shipments	
	1919	1918	1919	1918
Wheat, bus...	4,230,200	.....	1,947,075	.....
Corn, bus...	56,000	.....	47,793	.....
Oats, bus...	2,810,900	.....	2,438,241	.....
Barley, bus...	94,125	.....	147,842	.....
Rye, bus...	1,325,700	.....	1,552,663	.....
Timothy, Clover & other Grass Seed, bags	710	.....	1,039	.....
Hay—				
Tons	18,257	.....	.....	.....
Bales .....	.....	.....	8,528	.....
Flour, bbls...	179,591	.....	622,594	.....

MINNEAPOLIS—Reported by J. P. Larawa, statistician of the Chamber of Commerce:

	Receipts		Shipments	
	1919	1918	1919	1918
Wheat, bus...	18,480,890	21,306,490	4,478,900	2,323,900
Corn, bus...	337,340	793,910	174,920	548,450
Oats, bus...	2,407,840	4,168,400	1,938,350	5,783,970
Barley, bus...	1,422,880	2,930,740	1,412,520	3,532,960
Rye, bus...	1,010,380	922,530	310,230	695,990
Flax Seed, bus.	570,190	915,260	142,610	164,650
Hay, tons...	2,409	1,861	302	193
Flour, bbls...	107,332	70,801	2,378,349	2,341,846

OMAHA—Reported by F. P. Manchester, secretary of the Omaha Grain Exchange:

	Receipts		Shipments	
	1919	1918	1919	1918
Wheat, bus...	3,168,000	1,115,800	3,186,000	758,400
Corn, bus...	929,600	1,860,600	845,600	2,023,000
Oats, bus...	928,000	1,728,000	1,118,000	2,230,000
Barley, bus...	134,200	528,000	117,700	440,000
Rye, bus...	91,200	516,800	127,800	399,600

PEORIA—Reported by John R. Lofgren, secretary of the Board of Trade:

	Receipts		Shipments	
	1919	1918	1919	1918
Wheat, bus...	281,100	137,900	363,250	179,800
Corn, bus...	2,029,850	2,689,850	1,544,560	1,420,350
Oats, bus...	842,700	847,400	1,109,250	815,450
Barley, bus...	84,000	155,400	39,200	51,400
Rye, bus...	1,200	13,200	3,600	30,700
Mill Feed, tons	7,840	9,940	16,810	11,865
Seeds, lbs...	120,000	120,000	150,000	120,000
Broom Corn, lbs.	.....	105,000	15,000	120,000
Hay, tons...	4,070	5,050	530	2,460
Flour, bbls...	343,400	252,800	352,200	302,200

PHILADELPHIA—Reported by Samuel S. Daniels, statistician of the Commercial Exchange:

	Receipts		Shipments	
	1919	1918	1919	1918
Wheat, bus...	2,150,551	2,823,780	796,497	2,456,579
Corn, bus...	54,346	41,211	.....	.....
Oats, bus...	339,874	447,957	70,000	126,658
Barley, bus...	13	6,200	1,796	.....
Rye, bus...	67,089	153,092	.....	100,000
Flour, bbls...	435,092	228,856	121,879	.....

PORTLAND, MAINE—Reported by Geo. F. Feeney, traffic manager of the Chamber of Commerce:

	Receipts		Shipments	
	1919	1918	1919	1918
Wheat, bus...	973,162	441,953	168,000	1,820,963
Oats, bus...	.....	22,979	.....	.....
Rye, bus...	341,186	.....	202,000	.....

ST. LOUIS—Reported by Eugene Smith, secretary of the Merchants' Exchange:

	Receipts		Shipments	
	1919	1918	1919	1918
Wheat, bus...	5,033,654	2,097,622	4,471,430	1,066,900
Corn, bus...	1,435,340	1,869,349	547,380	1,251,560
Oats, bus...	2,239,190	1,746,000	1,399,780	1,350,420
Barley, bus...	67,200	62,400	38,510	24,480
Rye, bus...	19,800	17,815	11,930	38,180
Hay, tons...	16,227	28,867	6,170	16,920
Flour, bbls...	626,640	225,630	773,110	268,710

SAN FRANCISCO—Reported by W. B. Downes, statistician of the Chamber of Commerce:

	Receipts		Shipments	
	1919	1918	1919	1918
Wheat, cts...	95,436	.....	.....	.....
Corn, cts...	3,235	.....	.....	.....
Oats, cts...	21,613	.....	.....	.....
Barley, cts...	224,747	.....	163,438	.....
Rye, cts...	2,000	.....	.....	.....
Hay, tons...	5,412	.....	.....	.....
Flour, bbls...	134,948	.....	56,345	.....

TOLEDO—Reported by Archibald Gassaway, secretary of the Produce Exchange:

	Receipts		Shipments	
	1919	1918	1919	1918
Wheat, bus...	*989,000	605,955	231,216	20,000
Corn, bus...	61,250	124,400	4,875	55,245
Oats, bus...	303,460	633,950	234,606	647,875
Barley, bus...	6,000	6,000	1,330	68,891
Rye, bus...	268,800	37,200	206,468	46,420
Timothy Seed, bags	26,359	14,728	3,726	764
Clover Seed, bags	6,240	8,532	785	691
Alsike Seed, bags	1,216	1,270	957	1,017

*Includes 989,000 bushels by lake.

WHEAT AND FLOUR MOVEMENT

The United States Grain Corporation issued on November 11, its twenty-sixth weekly bulletin covering the wheat and wheat flour movement throughout the United States for the week ending October 31, in comparison with the figures for the same period a year ago. The figures given out were as follows:

	1919	1918
Wheat receipts from farms, bushels.....	18,819,000	15,597,000
Wheat receipts from farms, bushels, previous week.....	20,774,000	20,350,000
Wheat receipts from farms, bushels, June 27 to October 31.....	553,822,000	530,905,000
Flour produced during week, barrels.....	3,340,000	2,294,000



EASTERN

David Ziskind has purchased the grain and coal business of the Wm. E. Livingstone Company at Lowell, Mass.

A grain cleaner and grader has been installed in the new storage warehouse of F. P. Higbie, a grain dealer at Chili Station, N. Y.

The New Era Cash Grain & Feed Company is now located at Buffalo, N. Y., at 223 Chamber of Commerce. It moved recently from Binghamton. This company has stores located through the states of New York and Pennsylvania.

A five-story reinforced concrete fireproof building is to be built for Barber & Bennett of Albany, N. Y. The company handles grain, flour and feed. The building will be used for a warehouse and grain storage and will adjoin the large new building recently completed. The plant will cost \$160,000.

CANADA

L. N. Jourdain of Three Rivers, Que., has given the contract for the erection of a \$35,000 grain elevator.

The Franco-British Country Elevators, Ltd., Winnipeg, have been incorporated, with a capital stock of \$100,000.

The Home Grain Company of Craigmyle, Alta., has commenced the construction of a grain elevator of 20,000 bushels' capacity.

The Royal Standard Grain Products, of Courtney, B. C., have commenced to tear down their old building which is to be replaced by a new modern structure.

The Saskatchewan Grain Growers' Association is desirous of erecting a large warehouse at Regina, for handling merchandise which they sell to the farmers on a co-operative basis.

The Judge-Jones Milling Company of Belleville, Ont., has made plans for the construction of a grain elevator and flour mill there. The mill will have a daily capacity of 250 barrels wheat flour, 250 barrels corn flour, 100 barrels rolled oats and 300 barrels cornmeal, besides mill feeds. Geo. B. Jones is manager of the firm.

WESTERN

MacDonald, Hale & Co., are succeeded at Seattle, Wash., by the MacDonald Grain Company.

Capitalized at \$10,000, the Grange Warehouse Company has been organized at Kelso, Wash.

The St. Anthony & Dakota Elevator Company has closed its elevator at Saco, Mont., for the season.

A warehouse 70x116 feet is to be built to the property of the Grain Growers Association at Wilbur, Wash.

The new 10,000-bushel grain and bean elevator of the Floersheim Mercantile Company at Springer, N. Mex., has been completed.

The Billings-Rochdale Union was organized at Billings, Mont., and will conduct a grain elevator, mill and coal and lumber business.

The Spokane Flouring Mills have leased the 100,000-bushel elevator and warehouse of the Pendleton Elevator Company at Pendleton, Ore.

The charter of the Umatilla Flour & Grain Company of Pendleton, Ore., has been amended increasing the capital stock from \$3,000 to \$20,000.

The Farmers Mutual Elevator Company is going to build a new grain elevator at Cheyenne, Wyo. The company has purchased a site there for \$2,000.

A 30,000-bushel elevator is to be constructed at Roy, N. Mex., for the Standard Elevator. The elevator will have capacity for loading out six cars daily.

The Globe Grain & Elevator Company has equipped its elevator at Ogden, Utah, with equipment furnished by the Richardson Grain Separator Company.

A storage annex of 110,000 bushels' capacity is to be erected to the establishment of the Ravalli Flour & Cereal Mill at Missoula, Mont. This will give the company capacity of 235,000 bushels.

A new elevator has been erected at Steamboat Springs, Colo., of 15,000 bushels' capacity and costing over \$15,000. The elevator will be ready by December 1 for operation. The Farmers Co-operative Elevator Company will operate it. Interested

in this firm are the following: Harley F. Barber, Thos. E. Southlee, Geo. S. Woodcock, Frank Squire and P. A. Van Dorn.

A new grain elevator of 30,000 bushels' grain is to be constructed at Platner, Colo., for G. C. Miller.

The Big Flat Elevator Company has been incorporated to operate at Harlem, Mont., with E. P. Ekegren as president; W. H. Reed, vice-president; M. L. Johnson, secretary and treasurer. The company is capitalized at \$15,000.

A new elevator of cribbed construction has been completed for the Denio Milling Company at Wyola, Mont. The elevator has a capacity of 25,000 bushels and contains 12 bins and one leg. A Fairbanks Track Dump has also been installed.

The Utah Valley Milling & Produce Company has been incorporated to operate a grain and produce business at Payson, Utah. John M. Cowan is president; E. W. Simons, vice-president; O. J. Cotterell, secretary and treasurer and O. P. Huish and D. H. Sargent, directors. The capital stock of the firm is \$50,000.

IOWA

Chris Williams has opened for business a new 20,000-bushel elevator at Boone, Iowa.

A new grain elevator is being erected by A. Doolittle at Griswold, Iowa, on his farm there.

The elevator of the Junction Farmers Elevator Company at Grand Junction, Iowa, has been sold.

The McKee Bros., commission men, are planning the erection of a grain elevator at Muscatine, Iowa.

The O. A. Talbot Grain Company of Ellston, Iowa, contemplates the erection of a grain elevator there.

The North Waterloo Elevator, r. f. d. 4, Waterloo, Iowa, has been incorporated. The company is capitalized at \$20,000.

Chas. Hendrix's grain and feed business at Lovilia, Iowa, has been purchased by Arthur Perry, formerly of Perry, Iowa.

The Garland & Towne Elevator Company has purchased the property of the Farmers Elevator Company at Jamaica, Iowa.

The J. L. Bruce Grain Elevator and cribs have been purchased by the Co-operative Farmers Elevator Company at Humboldt, Iowa, for \$45,000.

Mr. Hankin of Cloverdale, Iowa, has purchased the Osgood Elevator situated at Emmetsburg, Iowa. Possession will be given after January.

The farmers have organized a company at Macedonia, Iowa. They have purchased a building and will conduct a grain, coal and lumber business.

The Farmers Co-operative Company was recently organized at Greenfield, Iowa, to handle and store farm products, etc. Capital stock is \$50,000. L. Sulgrove is president.

Improvements have been made to the elevator of the Farmers Co-operative Elevator Company at Oakland, Iowa. A set of self-registering 10-ton scales have been installed.

J. A. Campbell & Son's elevators at Lorah and Gates (r. f. d. Atlantic), Iowa, have been purchased by Gund & Sien, grain dealers located at Atlantic. This firm operates a string of elevators.

The interest of C. P. Armstrong in the Lake View Grain Company at Lake View, Iowa, has been sold to his partner, John Smith. Mr. Armstrong will devote his entire time to the hardware business.

The entire plant of the Lakewood Farmers Elevator Company, Rock Rapids, Iowa, is being overhauled. A new chain, drive belt, and corn tester is being installed as well as a new lighting plant.

Work is progressing on the new elevator of H. B. McVeigh at New Sharon, Iowa. It will be of concrete and absolutely fireproof. This plant will be the same size as the one which burned last summer.

The Washington Elevator Company's elevator at Washington, Iowa, has been taken over by the Farmers Union Exchange. Possession was given on November 1. The farmers' company was recently organized and is capitalized at \$75,000.

The following Iowa firms have equipped their elevators with Trapp Dumps: Farmers Grain Company, Hawarden, Combination Truck and Wagon Dump; C. Williams, Boone; The Van West

Grain Company, Westview Siding, Farmers Elevator Company, Pierson, T. S. Cathcart & Sons, Kingsley, Trapp Auto Truck Dumps.

The Farmers Co-operative Elevator Company has been organized at Lincoln, Tama County, Iowa, capitalized at \$30,000.

A new 50-foot conveyor has been installed at the Des Moines, Iowa, establishment of Sargent & Co., to handle their increased business.

A site at Clinton, Iowa, has been purchased by the Farmers Equity Society on which will be erected an elevator and storehouse combined.

Extensive improvements are to be made to the elevator of the Farmers Lumber & Grain Company at Mapleton, Iowa. They have put in a new power and bucket system. This will not increase the capacity of the house but will increase handling facilities.

The stockholders of the Independence Farmers Elevator Company of Sac City, Iowa, have made arrangements to increase its capital stock from \$15,000 to \$40,000. The firm plans to erect a popcorn elevator to handle between 20,000 and 40,000 bushels popcorn.

Horace T. McCord has been made manager of the Merchants' Elevator Company's interests at Davenport, Iowa. The interests at Davenport include a 1,000,000-bushel elevator. Mr. McCord has been in charge of the firm's business at Sioux Falls, S. D., for two years.

INDIANA

The Goodland Grain Elevator at Goodland, Ind., has been purchased by the Farmers Elevator company.

A new grain elevator is to be constructed at Gesie, Ind., by a new organization which is capitalized at \$25,000.

Repairs have been made to the plant of the Farmers Grain & Supply Company of Centerville, Ind. The bins hold 25,000 bushels wheat.

The Grange Elevator Company, which was organized a few months ago capitalized at \$50,000, is erecting a new elevator at Mishawaka, Ind.

To conduct a grain elevator, the Farmers Co-operative Company has been incorporated at Glenwood, Ind. J. C. Beaver, F. T. Reed and T. G. Richardson are interested.

Clyde R. Herriman, Harry L. Sell and John E. Stonehill are the incorporators of the Farmers Co-operative Company of Ade (Brooks p. o.), Ind. The firm is capitalized at \$50,000.

The 300,000-bushel elevator at Snyder (Knights-town p. o.), Ind., has been purchased by the Taylor & Bournique Company of Milwaukee. The elevator has been operated by the Armour Company and owned by the New York Central Railroad.

A new elevator is to be constructed at Kirkpatrick, Ind., for the Farmers Elevator Company. This will be the third elevator which the company has erected on this site. The other two were burned within the past 28 months.

The Dunkirk and Mill Grove, Ind., elevators of Chas. M. Skinner have been sold to A. D. Shirley and Forest Shirley of Lebanon, Ind. Possession was to be given on November 15 and will be conducted under the name of the Shirley Bros.

SOUTHERN AND SOUTHWESTERN

A grain and feed business is to be started at South Pittsburgh, Tenn., by D. Y. Conatser.

The Fletcher Grain Company has purchased the elevator at Fletcher, Okla., from W. W. Brunskill.

Collins & Patton succeed F. W. Ward & Co., as conductors of the grain business at Higgins, Texas.

The Cisco Grain Company's business at Cisco, Texas, has been purchased by H. J. Bradfish of Weatherford.

The elevator of the Cobb Grain Company at Plainview, Texas, has been purchased by the South Plains Grain Company.

The elevator at Gracemont, Okla., owned by W. B. Johnston of Enid has been purchased by the Farmers Elevator Company for a consideration of \$8,800.

A concrete elevator costing \$35,000 is to be erected at Hendersonville, N. C., for the Vanco Mills which were recently incorporated, capitalized at \$100,000. C. V. Singleton is president; F.

B. Robords, secretary and treasurer. A 40x80 foot mill is also to be built. The plant will be operated by a 150-horsepower electric drive.

G. W. Stark and G. W. Davis are interested in the Howe Grain & Milling Company of Howe, Texas, capitalized at \$50,000.

J. I. Davis and E. Thomas of Quitman have leased the elevator at Bainbridge, Ga. They will put it into operation immediately.

The elevator and mill at Weleetka, Okla., has been purchased by C. B. Westervelt. They were formerly owned by Cartwright & Homer.

The Farmers Mill & Elevator Company has been incorporated at White Deer, Texas, capitalized at \$35,000. E. H. Grimes and others are interested in the firm.

The Goree Grain & Elevator Company of Goree, Texas, will double its capacity. A cleaner, hopper scale and drier is to be installed in the plant in the spring.

The L. O. Street Grain Company is operating the elevator at Woodward, Okla., formerly occupied by the C. A. Hoops Grain Company. The latter firm is now out of business.

A three-story concrete and tile wing addition is to be erected to the plant of the Yoakum Mill & Elevator Company at Yoakum, Texas. The addition will cost \$14,000.

C. C. Boyd, C. Q. Neil and M. P. Scott are the incorporators of the Harmon County Farmers Co-operative Company of Hollis, Okla. The firm is capitalized at \$20,000.

Harry H. Hughes has purchased for the consideration of \$29,500 the plant of the Capitol Grain Company at Nashville, Tenn. The plant includes a flour mill and grain elevator.

To build a grain elevator at Darrousett (mail to Follett), Texas, the Darrousett Co-operative Association has been incorporated. W. E. Beach, W. E. Smith, Chas. Flock and others are interested.

The Oswego Seed & Grain Company of Oswego, Kan., has sold its Vinita, Okla., elevator to the O'Bannon Company. The O'Bannon Company now operates elevators at Claremore, Wagoner and two at Vinita.

Lawrence Mitchell of North Middletown and Perry & McCann of Shelby County have purchased the elevator of R. H. Hutchcraft of Paris, Ky. They will improve the mill and handle a general grain business.

A grain elevator of concrete construction is to be built at Fredericksburg, Va., for the Young-Sweetser Company. The daily handling capacity will be 25,000 bushels. Deverell, Spencer & Co., had the contract.

To conduct a grain elevator, market and a chain of potato storage houses the Colleton Products Association was organized at Walterboro, S. C. Capital stock of the association is \$100,000. E. T. H. Shaffer is interested.

The Charles D. Jones Company, grain handlers of Nashville, Tenn., has purchased the plant of the Nashville Steel Elevator & Storage Company, Nashville. The capacity of the plant is 325,000 bushels. Consideration was \$40,000.

MISSOURI, KANSAS AND NEBRASKA

Wm. Timmis has completed a new 16,000-bushel elevator at Garland, Kan.

A new elevator will be erected next spring by Wm. Krotter at Stuart, Neb.

The Slaughter Elevator at Sholes, Neb., has been taken over by Mr. Peck.

The Atlas Elevator at Osmond, Neb., has been taken over by Oscar Trotter.

The L. A. Baber Elevator at Mentor, Kan., has been purchased by Hinshaw & Myers.

The elevator plants of the Shreiber Milling Company, St. Joseph, Mo., is being enlarged.

The Royal, Neb., elevator has been purchased by an organization of farmers of that vicinity.

The elevator of the Nye-Schneider-Fowler Company at Whitney, Neb., is undergoing repairs.

I. Kuper has purchased the elevator at Auburn, Neb., formerly conducted by Monroe Connor.

A farmers elevator is to be constructed at Meriden, Kan., as soon as funds have been collected.

Ballinger & McAllister have the contract for the new elevator of the Superior Terminal Elevator Company of Superior, Neb.

Capitalized at \$20,000, the Farmers & Producers Grain Company has been incorporated at Centralia, Mo.

The North Elevator at Palmer, Kan., has been sold by H. B. Nye to the Baker-Crowell Grain Company.

Additional grain storage is to be built at Springfield, Mo., for the Eisenmayer Milling Company. The addition is to be of reinforced concrete. The two storage tanks will have capacity of 60,000

bushels and will be fireproof. These additions will make the capacity of the entire plant 250,000 bushels.

An addition, 20x40 feet, is to be built to the main elevator of the Farmers Elevator at Tecumseh, Neb.

The elevator of Wm. Burk of Hallam, Neb., has been purchased by the Benj. J. Brahmstadt Grain Company.

The elevator of the Updike Grain Company at Gresham, Neb., has been purchased by R. L. Thompson.

The Farmers Equity Exchange of Wellfleet, Neb., is to build a new elevator of 10,000 bushels' capacity there.

The elevator of the Crowell Lumber & Grain Company at Herman, Neb., is undergoing extensive improvements.

The elevator of the Farmers Grain & Implement Company at Ianta, Mo., has been purchased by Sterling Stewart.

The Middle Elevator located at Moorefield, Neb., is being razed. The lumber will be used for other construction purposes.

A new grain elevator is under course of construction at Valley, Neb., replacing the one which burned last winter.

The Young Grain Company has purchased the elevator of the Rock Milling & Elevator Company at Pretty Prairie, Kan.

Fred Harter is in charge of the new elevator of the Gould Grain Company at Bloom, Kan., which the firm recently opened.

The Peterson Grain Company of Penokee, Kan., is succeeded in business by the Penokee Farmers Union Co-operative Association.

Williams Shands and Albert Lobe have secured a lease on a site of land at Mound City, Kan., on which it will erect a grain elevator.

Construction work has been completed on the new elevator of the Farmers Union Elevator & Supply Company at Clarkson, Neb.

The elevator of the Updike Grain Company situated at Cordova, Neb., has been taken over by the Octavia Lumber & Grain Company.

Carton & Estes have leased the elevator and mill of Jos. Darton at Orrick, Mo. L. B. Darton and C. B. Estes are the members of this firm.

The Farmers Elevator Company has completed a 50,000-bushel elevator at Westpoint, Neb. It is of concrete construction and cost \$50,000.

The Edmonston & Mayfield Elevator at Pleasant Green, Mo., has been purchased by the Pleasant Green Farmers Elevator Company.

A modern 25,000-bushel elevator has been completed at Baldwin, Kan., for the Equity Produce Company. L. C. Hanson is manager of the plant.

An addition to increase the capacity from 25,000 to 30,000 bushels has been built to the plant of the Monett Milling & Elevator Company of Monett, Mo.

The elevator of the Atlas Elevator Company at Dixon, Neb., has been taken over by Frank Hopkins of Dixon. Possession was given on November 1.

C. M. and D. D. Alspach and G. W. Douglas have incorporated the Alspach Grain Company of Kirwin, Kan. The capital stock of the firm amounts to \$25,000.

Farmers in the vicinity of Kirksville, Mo., have organized the Farmers Co-operative Elevator & Shipping Association. The capital stock of the firm is \$10,000.

John S. Becher, H. Meyer and E. E. Ludtke have incorporated at Creston, Neb., as the Farmers Grain & Stock Company. The corporation is capitalized at \$50,000.

A new warehouse and office, 48x96 feet, has been erected at Palmyra, Mo., for the Farmers Elevator & Exchange Company. A new 10-ton truck scale is also to be installed.

A grain elevator of 20,000 bushels' capacity is being erected at Mankato, Kan., for the Jewell County Farmers Union Co-operative. A large warehouse is also being built.

The elevator of the Farmers Union Co-operative Grain Company at Talmage, Neb., is to be rebuilt. The capacity will be 25,000 bushels. The elevator is to be of tile construction.

The plant of Hamlin & Son at Paola, Kan., has been taken over by the Paola Mill & Elevator Company. Extensive improvements are to be made to the elevator. G. I. Poultryman is manager.

The elevators of J. W. Warrick of Meadow Grove, Kan., of R. W. Dockstader of Beloit, Kan., and of J. B. Adams of Omaha, Neb., at Schaller, Iowa, have been equipped with Trapp Auto Truck Dumps; those of the Nehawka Farmers Grain Company, Nehawka, Neb., Blair Elevator Company, Atchison, Kan., and Arkansas City Milling Company, Protection, Kan., with Trapp Combination Truck

and Wagon Dump. The latter firm's elevator is being built by the Burrell Engineering Company.

The Farmers Co-operative Association recently purchased the elevator of the Railsback Bros. at Greenwood, Neb. The purchase price was \$8,500. W. E. Hand will be manager of the association.

The license of the Farmers Elevator Association at Moundridge, Kan., has been revoked by the United States Wheat Director. The complaint was made that the company did not pay a fair reflection of the guaranteed prices for products.

A. B. Smith of Chicago, C. H. Mayer, F. L. Ford, F. A. Bodern and R. E. Hastings have incorporated the St. Joseph Public Elevator Company of St. Joseph, Mo. Its capital stock is \$200,000. The company will erect a terminal elevator there.

A 22,000-bushel frame and steel elevator is being erected at Hope, Kan., for the Farmers Co-operative Elevator & Supply Company. A cleaner, automatic scales, electric motors and electric lights are being installed. A warehouse 24x76 feet is to be built.

The Chicago, Burlington & Quincy has made plans for the erection of the Murray Elevator at Kansas City, Mo., which was destroyed by a dust explosion not long ago. The Burrell Engineering & Construction Company has the contract for the elevator which will cost \$300,000. The new elevator will be of the same capacity as the old, 1,800,000 bushels. It has been announced that the elevator will be ready for operation in approximately four months.

ILLINOIS

The elevator at Burgess, Ill., has been purchased by E. J. Pearson.

The new elevator of the Alhambra (Ill.) Grain & Feed Company has been completed.

The Farmers Co-operative Elevator Company has organized at St. David, Ill., capitalized at \$25,000.

Leslie J. Jones of Rochester, Ill., is the new proprietor of the elevator of the Twist Bros. located at Palmer, Ill.

The grain elevator at Palmer, Ill., has been purchased by L. T. Jones. He will operate as L. T. Jones & Co.

Farmers have purchased the elevator of the West Bros. at Manteno, Ill. Possession was given on November 1.

An addition is being built to the Farmers Elevator at Tyler (mail to Proctor), Ill. The old Rogers Elevator is being torn down.

Construction work has been completed on the new elevator of the Farmers Co-operative Elevator Company at Farmersville, Ill.

The National Elevator Company has made plans for the purchase and operation of Fred Cash's elevator at Hughes Switch, Hume, Ill.

Mathias Bros. & Co., of Prophetstown, Ill., have purchased a Trapp Auto Truck Dump to be installed in their elevator at Hooppole, Ill.

The Farmers Co-operative Grain Company has been organized at Chenoa, Ill., capitalized at \$60,000. John C. Heins is one of the directors.

The Kehlor Flour Mills Company is building in East St. Louis, Ill., a 600,000-bushel elevator. The addition will soon be ready for receiving grain.

A new grain elevator of 20,000 bushels' capacity is to be erected at Van Orin, Ill. The building will be 20x26 feet, 76 feet high with cupola 96 feet high.

E. L. Carpentier, Grover Barnard, V. Tripp, Fred Haas, Henry Mensendick and John Nelson have purchased the elevator of Geo. Major at West Point, Ill.

David S. Moll, Geo. F. Moessner and John A. Moessner have filed incorporation papers at Shannon, Ill., as the Shannon Grain Company. The company is capitalized at \$25,000.

The Christian County Grain Company has been incorporated at Taylorville, Ill., capitalized at \$15,000. The organizers include F. L. Long, W. D. Shehann, J. J. Achenbach and Geo. W. Parrish.

Capitalized at \$15,000, the Denver Elevator Company has been incorporated at Denver, Ill. The incorporators are: J. B. Ufkus, S. S. Fleming, W. A. Kleppert, C. C. Barber and H. L. O'Brien of Denver.

The elevator at Exline, Ill., has been purchased by the Exline Farmers Elevator Company from A. Z. Hoag. It has been rebuilt and an addition of 5,000 bushels' capacity built. A new office has also been built.

The Corn Products Company has awarded the contract to the Leonard Construction Company of Chicago, Ill., for eight additional concrete storage tanks to be built at their Pekin, Ill., plant. It will increase the storage of the plant by 360,000 bushels.

To handle grain, lumber, coal, etc., the Owaneco Farmers Co-operative Association has been incorporated at Owaneco, Ill. The organizers are: C.

H. Mitchell, P. Snyder, C. H. Bonnell, Chas. H. Hague, C. A. Long, J. W. Anderson and R. Peabody. The capital stock of the firm, which will operate on a co-operative basis, is \$30,000.

Articles of incorporation have been filed at Cullum, Ill., by the Cullum Co-operative Grain Company, capitalized at \$40,000. The incorporators of the firm are: John Doebl, Raymond Higler and Chas. E. Jewkes.

The grain elevator of Alward-Zeigler Grain Company at Taylorville, Ill., has been sold to Otto Young of Boody. Possession is to be given on December 1. The elevator was formerly owned by B. F. Jostes.

The South Ottawa Co-operative Grain & Supply Company was recently incorporated at Ottawa, Ill., capitalized at \$30,000. The following are interested in the company: A. L. Duffield, H. C. Knoll and C. F. Knoll.

The elevator of the Twist Bros. at Clarksdale, Ill., has been purchased by the stock company recently organized there in which Troy L. Long, L. D. Hewitt, W. D. Sheban, Geo. W. Parrish and J. J. Achenbach are interested.

A company has been formed by several shippers operating on the Chicago Board of Trade to take over and operate the Michigan Central Elevator at One Hundred and Twenty-Fourth Street and Cottage Grove Avenue, Chicago, Ill. F. H. Mealiff is interested in the company and it is reported will be the future manager of the company. He has for a number of years been manager of the elevator. The elevator is of fireproof construction and has a capacity of 300,000 bushels.

THE DAKOTAS

John Heisler has disposed of his grain elevator at Napoleon, N. D.

An addition is being built to the elevator of the Wm. Plummer Company at Minnewaukan, N. D.

Electric power has been installed in the plant of the Occident Elevator Company at Kenmare, N. D.

A 50,000-bushel, electrically operated elevator is to be built at Forbes, N. D., for the Forbes Farmers Equity Company.

Geo. Raker's elevators at Mount Vernon and White Lake, S. D., have been purchased by A. A. Truax of Mt. Vernon.

The new 20,000-bushel elevator of the Farmers Elevator Company at Colton, S. D., has been completed. It consists of six bins.

The elevator of S. J. Sjurson Grain Company at Bristol, S. D., has been completed. The elevator has a capacity of 30,000 bushels.

The elevator of the Farmers Union Co-operative Company at Yankton, S. D., has been overhauled and equipped with auto truck dump.

Operations have been started in the elevator of the Tri-State Milling Company at Nisland, S. D. Mr. Tomlinson is manager of the firm.

The Occident Elevator Company has sold its elevator at Divide (Sheyenne p. o.), N. D., to the Equity Elevator Co-operative Exchange.

The elevator of the Duncan Elevator Company at Litchville, N. D., has been remodeled. Among the improvements is a new feed mill, scales and engine.

The recently incorporated farmers elevator company at Sioux Falls, S. D., has made arrangements to remodel the elevator which it purchased recently.

A wood clad house of 50,000 bushels' capacity consisting of three legs and 30 bins has been erected at Cathay, N. D., for the Farmers Elevator Company.

The Spottswood Co-operative Elevator Company has been organized at Spottswood (Tulare p. o.), S. D., and will erect a grain elevator. E. McNeill is president of the firm.

The elevator at Osnabrock, N. D., formerly operated as the Independent Elevator has been opened up by A. P. Kezma. He will operate as the Kezma Elevator Company.

The Farmers Elevator at Tuttle, N. D., has been purchased by B. C. Hanson and others. Mr. Hanson was formerly manager of the Farmers Elevator Company of Hastings, N. D.

The 30,000-bushel elevator of G. W. Van Dusen & Co., at Sheffield, S. D., has been completed. It includes two legs, 16 bins, a Fairbanks Engine and Fairbanks Auto Truck Scale.

A new elevator is to be built at Mantador, N. D., by the Farmers Grain & Seed Company, replacing the one which burned. The building will have a concrete foundation, the balance of the structure to be brick. It will be fireproof throughout and equipped with modern appliances.

The following South Dakota firms have equipped their plants with dumps of Trapp-Gohr-Donovan Company's manufacture: Western Terminal Elevator Company, Jefferson, a Trapp Auto Truck

Dump; Farmers Union Company, Hurley, and C. H. Hoggestratt, Chancellor, Trapp Combination Truck and Wagon Dumps.

G. A. Oscarson, A. W. Powell and L. Anderson have filed incorporation papers at White Rock, S. D., as the Farmers Elevator Company.

A 40,000-bushel elevator has been completed at Frankfort, S. D., for the Farmers Elevator Company. The plant contains two legs, 18 bins, auto truck scale and 25-horsepower engine.

A 50,000-bushel cribbed elevator consisting of 30 bins and containing five cleaners, two engines, three legs and a Fairbanks Truck Dump has been built at Pillsbury, N. D., for the Farmers Elevator Company.

The Imperial Elevator at Bottineau, N. D., has been purchased by J. H. Schreiner and his brother, J. C. Schreiner. J. H. Schreiner has had charge of the elevator for some time and will continue in charge of the plant.

A new office building is to be constructed at the establishment of the Farmers Union Elevator Company at Henry, S. D. It will be 20x40 feet and will be divided into three rooms. It will occupy the site of the present office.

The elevator at Alexander, N. D., has been purchased by the International Elevator Company. The one at Rawson, formerly owned by the Gunderson-Olson Grain Company, has also been purchased by the International concern.

A new terminal elevator is to be erected at Drake, N. D., by the State Industrial Commission. It will be 40x60 feet and 120 feet high. The entire structure is to be of concrete and will have a capacity of 250,000 bushels. This is the first of the line of state owned elevators to be built in the state of North Dakota. The Industrial Commission also has made tentative plans for the erection of state-owned flour mills.

OHIO AND MICHIGAN

The F. A. Derck Grain Company is succeeded at Lima, Ohio, by the Derck McNeff Company.

The Lurie Bros.' interest in the elevator at Jones, Mich., has been purchased by C. A. King who will operate it.

The elevator of the People's Grain Company at Freeland, Mich., is to be rebuilt. It burned in August.

A new elevator is to be constructed at Montpelier, Ohio, by W. E. Riley. Construction contract has been let.

Farmers around Covington, Ohio, have organized a company to be known as the Farmers Grain & Supply Company.

A new elevator, store room and office is to be built at Carey, Ohio, for the Carey Farmers Co-operative Company.

A new concrete elevator is being erected by the Farmers Elevator Company at Genoa, Ohio, on the site of the old Powers Elevator.

Improvements are to be made to the plant of Emery Thierwechter & Co., of Oak Harbor, Ohio. A Randolph Drier is to be installed.

The Pemberville Elevator Company of Pemberville, Ohio, is contemplating the increasing of its capital stock from \$25,000 to \$50,000.

A site at Fort Jennings, Ohio, has been purchased by the Raabe Bros. They will commence the erection of a grain elevator at once.

The capacity of the elevator of the Farmers Elevator Company at Chesaniug, Mich., is being doubled. Many improvements are being made to the plant.

A large new grain elevator of modern type is to be built at Elida, Ohio, for the Farmers Equity Exchange. The new elevator will replace the one now in use.

The Fostoria Grain Company is a new company recently incorporated at Fostoria, Mich., capitalized at \$16,000. A. Frutvhey, S. Day and E. S. Terry are interested.

The interest of H. W. Bowen in Geo. T. Bowen & Son at Savona, Ohio, has been sold by him. He is now manager of the Union City Elevator Company of Union City, Ind.

Capitalized at \$40,000, the Farmers Elevator Company has been organized at Concord, Mich. The incorporators are: Fred A. Hadley, Marvin Woodliff and John M. Lippert.

The farmers around Marion, Mich., have organized and have purchased the property of the Marion Grain Company. F. M. White is president and R. H. Kent, manager of the firm.

A warehouse and elevator is to be built at Thurston, Ohio, for the Thurston Elevator Company which was organized recently. E. L. Troup, F. D. Phipps, H. I. Turner are interested.

The two-thirds interest of Plum & Sark of Ashville, Ohio, in the grain elevators at Mt. Sterling, and Cook, Ohio, was sold by them recently. A short time afterwards they purchased the Lilly

Chapel elevator property of Thomas F. and Ben P. Wood. They paid \$30,000 for this property, including three acres of land. Thomas F. and Ben J. Wood, in turn, have purchased the business of Farrar & Wood at Lilly Chapel.

The Morgan County Farmers Elevator Company has been incorporated at McConnelsville, Ohio, by A. H. Humphreys, C. R. Massey, P. G. Lawrence and C. S. Strong. The company is capitalized at \$20,000.

The elevator and mills of G. G. Rockwell at North Baltimore, Ohio, has been purchased by the recently incorporated Farmers Co-operative Flour & Grain Company. Possession was given on November 1.

A new company has been formed at Hoytville, Ohio, with D. B. Spitler, president; A. R. George, vice-president; May Shaner, secretary; Peter P. Smith, treasurer and O. C. Robinson, general manager. It will erect and operate a new grain elevator there.

The Wapakoneta Farmers Grain Company has purchased the elevator at Wapakoneta, Ohio, lately owned by the Sheets Bros. of Botkins. It has been operated under the management of E. C. McCullough, who will remain in same capacity under new proprietors.

Farmers in the vicinity of Bucyrus, Ohio, have organized the Bucyrus Equity Union and have elected O. W. Angene temporary chairman; C. C. Crum, secretary. The firm will be incorporated capitalized at \$40,000 and will either buy or build a grain elevator at Bucyrus.

Edward Millhouse is president; A. Draving, vice-president; Alfred Millhouse, secretary and treasurer of the new organization incorporated by farmers at Piqua, Ohio, the members of the Newberry Township Farm Bureau. The company will establish a grain elevator, either buying or building one, and operate it.

MINNESOTA AND WISCONSIN

The Erwin Milling Company has completed its elevator at Pine River, Minn.

Capitalized at \$12,000, the Farmers Elevator Company has been organized at Unity, Wis.

A grain elevator is to be constructed at Madelia, Minn., for the Equity Co-operative Exchange.

The grain elevator at Guckeen, Minn., has been purchased by farmers and will be operated by them.

The Rodell Elevator at Rodell (mail to Augusta), Wis., has been opened for business by Herman Louis.

The Silver Lake Farmers Elevator, Silver Lake, Minn., is to be taken over by the Equity, it is understood.

A farmers' organization has purchased the grain elevator of H. Ausman & Sons at Elk Mound, Wis. James Brackett will be manager.

G. J. Huhn is now with the Two Rivers Co-operative Association of Two Rivers, Wis., as the manager of the elevator and warehouse.

A new elevator and warehouse is being erected at Askov, Minn., for the Askov Co-operative Association. N. C. Lawsen is manager.

A new grain cleaner has been installed in the plant of the Farmers Elevator Company at Herman, Minn., with a flax attachment.

An addition 33x66 feet is to be built to the plant of the Farmers Elevator Company at Waupun, Wis., to be used as a feed warehouse.

A warehouse for storing grain, feed and flour has been opened for business at Elderon, Wis., by the American Co-operative Association.

The Merchants Warehouse Company of Hibbing, Minn., has opened a hay, feed, flour and grain depot in the old Fitzer Building at Hibbing.

Geo. S. Fisher, H. B. Graves and N. Fisher have incorporated the Fisher Grain & Feed Company of Evansville, Wis. Its capital stock amounts to \$10,000.

A grain elevator is to be constructed at Trempealeau, Wis., next spring. When completed it will be operated under the management of J. D. Babcock.

Additional alterations are to be made to Elevator "K" of the Sheffield Elevator Company of Minneapolis, Minn. The permit calls for improvements costing \$15,000.

Incorporation papers have been filed at Strum, Wis., by Martin L. Dahl, Julius Johnson and O. C. Olson as the Farmers Elevator Company. The capital stock of the firm is \$12,000.

A new elevator and mill is being erected at Iron River, Wis., for A. B. Tester. The machinery for feed grinding will be installed immediately. Next spring flour mill equipment will be put in.

A new 28,000-bushel elevator has been built for the Beltrami Elevator & Milling Company at Bemidji, Minn., replacing the one which burned last spring. The elevator has 11 bins and is 36x36

feet and 87½ feet high, and is covered with galvanized iron sheeting. The warehouse is 50x50 feet. Thos. S. Ervin is president of the company.

A Fairbanks-Morse 8-horsepower engine, cleaner and automatic scale are to be installed in the plant of the Equity Elevator Company at Flaming, Minn. Other improvements are also to be made.

The elevator of the Eagle Roller Mill Company at Searles, Minn., has been sold to the American Society of Equity. The organization has also purchased the Bingham Bros.' elevator at Essig.

The Lower Chippewa Valley Equity Exchange has been incorporated at Durand, Wis., capitalized at \$30,000. The company is building a 25,000-bushel concrete elevator. Pierre Kremer is manager.

A company at Forestville, Wis., composed of local business men has been formed and purchased the elevator and warehouse formerly owned by Froemming & Busse. S. Perry, Ed. Perry and W. H. Bastar are interested.

A new grain elevator is under course of construction at Ettrick, Wis. It is expected that the plant will be ready for operation by the middle of December.

John P. Johnson, Paul F. Palmer, William Huffman, Alvin Fairbrother, and C. W. Bennett have incorporated the Amberg Equity Co-operative Company at Amberg, Wis. The firm is capitalized at \$3,000.

The Davenport Elevator Company of Ellsworth, Minn., is enlarging its side lines. The firm will handle flour and feed stocks. Preparations are being made to provide storage facilities for these products.

The Cargill Elevator "C" at Green Bay, Wis., has been purchased by the Badger Grain Company. Fred De Broux is president of the Badger interests and was with the Cargill company for many years. The Badger company operates elevators at Mondovi, Bear Creek and Pulaski, Wis.

The oats were stored for seed next spring. It is said that \$10,000 insurance was carried on the elevator.

Kansas City, Mo.—A fire originating in the coal pockets in the yards of the F. E. Ransom Coal & Grain Company, spread to the elevator and practically destroyed it. The elevator contained 30,000 bushels of grain at the time.

Spielman (r. f. d. Fair Play), Md.—On October 18, the elevator, mill and store of J. M. Middlekauff burned together with 3,000 bushels wheat, one carload flour, machinery, merchandise and coal. The fire was of incendiary origin; loss \$40,000; partially covered by insurance.

Ft. Worth, Texas.—The frame structure of the E. G. Rall Grain Company was destroyed by fire with a loss of 30,000 bushels wheat and 10,000 bushels oats, besides sacks. The origin of the fire is not known. The plant will be rebuilt with many improvements and additional floor space. The large concrete bins of the elevator establishment were not injured.

OBITUARY

ANDREWS.—After a lingering illness, T. P. Andrews, aged 54 years, died at Sherman, Texas. He was one of the founders of the Texas Grain Dealers Association. At one time he was in the grain business at Fort Worth, under the name of T. P. Andrews & Co. Later he moved to Sherman where he also engaged in the grain business.

CHESS.—John P. Chess for over 28 years an employe of the Grain Inspection Department of Kansas died at Kansas City, Kan., on October 23. Mr. Chess was 68 years old.

CONNETT.—W. H. Connett died at Axtell, Kan., recently. He had operated a number of grain elevators in the state of Kansas.

FLYNN.—At the age of 85 years, James W. Flynn died at his home in Detroit, Mich. Mr. Flynn had been prominent in the grain business and had been a resident of Detroit for more than 50 years. He had several times served as president of the Board of Trade at Detroit and held that position when he retired from business 30 years ago. His widow and three daughters survive him.

HANSON.—On October 20, E. F. Hanson died at Grand Rapids, Mich. Mr. Hanson was manager of E. F. Hanson & Co., of Wauseon, Ohio, grain dealers. He had gone to Grand Rapids for slight operation and his sudden death was a shock to all who knew him.

LEFEBVRE.—J. H. Lefebvre, after a long illness, died at Quebec, Canada. Mr. Lefebvre was well known among hay and feed dealers and had been associated with one of the large operators in Canada for 20 years. He was connected with Lefebvre & Mahon of Howick Station, P. Q., Canada.

LENANE.—Thos. Lenane died aged 70 years. He was a prominent grain dealer at one time and was a member of the New York Produce Exchange.

LEVERONE.—On October 27, D. J. Leverone died from injuries received when in an automobile

accident. Mr. Leverone was a feed and poultry supply dealer of Louisville, Ky.

LONDON.—At the age of 62 years, Robert London died at Alliance, Ohio. He was a well-known grain dealer.

MONTGOMERY.—Robt. Montgomery died at Cincinnati, Ohio. He was one of the oldest members of the Chamber of Commerce and was well known as a grain and provision broker.

NORRIS.—On October 27, Wm. W. Norris died at Chicago. Mr. Norris was secretary of the Wm. Nash Grain Company of Chicago, Ill. He had been a member of the Chicago Board of Trade for more than 37 years and was well known throughout the country as a grain man. His widow and two daughters survive him.

PAINE.—Cassius M. Paine died at Denver, Colo., recently. Mr. Paine was in the elevator and grain business at Milwaukee, Wis., and in 1895 was president of the Chamber of Commerce. His widow and two daughters survive him.

PRIEP.—F. Priep died recently aged 76 years. Mr. Priep was a retired grain dealer and lived at Springfield, Mo.

PRUDOT.—Jos. Prudot died at New Orleans, La. He had for 12 years been superintendent of the Central Elevator & Warehouse Company's Elevators "D" and "E." He had been with the Central Elevator concern for 23 years.

SEARS.—Gilbert Sears died after an illness from cancer. Mr. Sears was vice-president of the C. H. Albers Commission Company of St. Louis, Mo. He had been identified with the grain business for 49 years, and had been a member of the Merchants Exchange for a great many years. He had been associated with the Albers firm since 1896.

SIMMERS.—Herman J. Simmers died at Toronto, Ont., aged 57 years. Mr. Simmers was vice-president of the seed firm of J. A. Simmers, Ltd.

GRAIN TRADE PATENTS

Bearing Date of October 7, 1919

Automatic safety device for employes' elevators.—Maurice D. Lemaster, Chambersburg, Pa., assignor to The Wolf Company, Chambersburg, Pa., a corporation of Pennsylvania. Filed March 27, 1918. No. 1,318,211.

Bearing Date of October 21, 1919

Grain door.—Bevill W. Whitworth, Cedar Falls, Iowa, assignor of one-third to Thomas A. Whitworth and one-third to Charles S. Whitworth, Cedar Falls, Iowa. Filed December 22, 1917. No. 1,319,368.

Shredding machine.—Joseph Stacowski, New York, N. Y., assignor to Schuch Machine Company, Philadelphia, Pa. Filed December 18, 1917. No. 1,319,496.

Feed mechanism for shredders.—Harry J. Shelton, St. Louis, Mo. Filed February 1, 1919. Serial No. 274,537. No. 1,319,122.

Bearing Date of October 28, 1919

Portable sacking machine.—William K. Liggett, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, Columbus, Ohio, a corporation of Ohio. Filed November 21, 1916. No. 1,320,249.

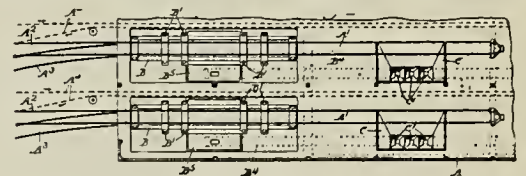
Screw conveyor.—Chas. H. Emerson, Milwaukee, Wis. Filed September 4, 1918. No. 1,320,214.

Grain car door.—Brees Van Strait, Buffalo, N. Y. Filed July 23, 1918. No. 1,320,297.

Bearing Date of November 4, 1919

Process of unloading grain cars.—Thomas D. Budd, Chicago, Ill., assignor of one-half to Link-Belt Company, Chicago, Ill., a corporation of Illinois, and one-half to James Stewart & Co., Inc., New York, N. Y., a corporation of New York. Filed April 1, 1918. No. 1,320,377. See cut.

Claim: The process of unloading cars which consists in moving them successively into a rapid unloading zone, there bodily tilting them to spill their contents, then returning each unloaded car successively backward in the same general direction from which



it came and meantime moving any car of the series which cannot be rapidly unloaded forwardly through the tilting zone, unloading it by hand at a point immediately adjacent such zone and returning it back through the tilting zone, making it a part of the series of rapidly unloaded cars.

SUIT has been brought in the Circuit Court at St. Joseph, Mo., by the Farmers Elevator Company of Forest City, Mo., against the G. W. Carter Grain Company of St. Joseph for \$3,100, which the plaintiffs claims is due them for a carload of wheat.

THE New South Wales Government has decided to give the farmers a guarantee of 5 shillings a bushel on their wheat crop for 1920-21, delivered at country railway stations, instead of 4 shillings, as for the 1919-20 crop. The announcement was made on September 9, in order to encourage the farmers to take advantage of the government's offer to advance them 5 shillings an acre for fallowing their land.

WILLIAM Dalrymple was rendered favorable judgment in the suit he filed against Randall, Gee & Mitchell of Minneapolis, for a car of grain sold some time ago. This grain was resold to R. J. Johnstone who failed after losing money on unhedged grain he was shipping from Minneapolis to Chicago and other markets. The court held that the grain belonged to William Dalrymple as long as it had not been paid for by the purchaser and the right of the vendor to reclaim his goods if not paid for was upheld by the court.

FIRES—CASUALTIES

Lancaster, Mo.—Fire damaged the seed and poultry house of J. C. Hackett recently.

Cushing, Okla.—The feed business of Acklin & Sons was damaged by fire. The loss amounted to \$5,000.

Tatamy, Pa.—The Messenger Manufacturing Company's feed and flour house was burned on October 29. The loss amounted to \$4,000.

Drake, Ill.—The Farmers Elevator was burned recently. The loss was covered by \$8,000 insurance on building and \$10,000 insurance on grain.

Rosalia, Wash.—Fire damaged the warehouse containing 10,000 to 15,000 sacks of grain. The total damage amounted to between \$50,000 and \$60,000.

Minneapolis, Minn.—On the night of November 2 the Gould Elevator Company's plant and the Cremo Cereal Mill burned. The damages amounted to \$200,000.

Memphis, Tenn.—Fire damaged the Riverside Elevator and the International Rice Mills owned by the W. C. Earley Company. The damages amounted to \$75,000.

Burbank, S. D.—Fire completely destroyed the elevator of the McCaull-Webster Company. The

loss is estimated at \$10,000. The elevator contained more than 4,000 bushels of grain at the time of the fire.

Tulsa, Okla.—The grain elevator here was burned on October 25 together with 2,000 bushels wheat and 5,000 bushels oats. The loss will amount to \$75,000.

Gouverneur, N. Y.—On October 26, H. H. Noble's feed warehouse burned. The losses amounted to \$80,000. The freight warehouse of the New York Central Railroad was also burned.

Nacogdoches, Texas.—W. T. Wilson Grain Company's warehouse burned together with about 10,000 bales of alfalfa. The damage amounted to \$40,000; partially covered by insurance.

Spangle, Wash.—The warehouse of the Farmers Grain Company was burned. The fire was of incendiary origin. The loss amounted to \$3,000. About 3,000 sacks of grain were in the plant at the time of the fire.

Wahpeton, N. D.—The elevator on the Downing Farm, west of this city, burned recently. The farm is the property of the Ulland Land Company of Fergus Falls, Minn. The elevator contained 1,800 bushels of oats owned by the company and a large amount of grain belonging to other parties.

HAY, STRAW AND FEED

CLOVER IN GREAT DEMAND

In a recent letter, the Mullally Hay and Grain Company of St. Louis, Mo., advises:

"Clover and heavy clover mixed continues scarce with an urgent demand, particularly so for the best grades. There has not been near enough clover coming in to supply the trade and clover hay buyers have been taking clover mixed hay to supply their wants and the market at present is bare of clover and heavy mixed with the trade unsupplied. The feeling on hay here is stronger as the indications are for light receipts for a while owing to the bad weather the past week which no doubt will stop the movement of hay from country points to some extent. Then, too, farmers are busy at this season of the year shocking corn and we believe that shipments made now would arrive here in time to sell at a higher range of prices than the present quotations as our market is well cleaned up and in better condition for fresh arrivals than it has been for some time past."

ACTIVE HAY MARKET EXPECTED AT ST. LOUIS

A letter of Toberman, Mackey & Co., of St. Louis, Mo., advises us:

The receipts of hay in St. Louis, as well as East St. Louis, have been only moderate, with a very active demand taking the biggest portion of the surplus arriving, especially the clover mixed hay, which seems to be in best demand, as well as the clover, and all of these grades were readily taken up. In our opinion the immediate future will show active and strong markets. We urge quick shipments of hay to our market.

Clover hay will keep in good demand all season with an upward tendency as the colder weather comes on and certainly would encourage you to hurry all the good clover hay to our market.

Alfalfa strong under light receipts and good demand. Prices some higher. Prairie: High grades in demand and none here. Medium and low grades in fair request only. Straw in good demand at high prices.

CHICAGO WILL ADOPT PLUGGING SYSTEM

A movement to adopt the plugging system in the handling of hay along the same lines as practiced at Cincinnati, Ohio, has started among the hay receivers of Chicago and in a short time it is expected it will be an accomplished fact. The Board of Trade of the City of Chicago last week appointed a committee to confer with the railroads on the question. This committee is composed of J. H. Devlin of Albert Miller & Co., Chairman; Geo. F. Bridge of Bridge & Leonard; C. T. Van Wie of Van Wie & Morehead and will meet with railroads early next week.

The plans as outlined are that all hay shall be inspected in the outer yards and enough bales removed so that all bales in the car are shown. When the inspection is made such inspection will be final with no reinspection. It is thought that the hay can be handled at three different yards, one North, one South and one West.

Under the new plan several days will be saved on cars to the railroads as they will be released back to the roads with greater promptness than when the inspection is made, as heretofore, on team track in the yards of the various roads carrying hay to the market.

FEEDING VALUES MORE IMPORTANT THAN ACTUAL INGREDIENTS

The *National Stockman & Farmer* calls attention to the fact that some of the provisions of the proposed bill to regulate trade in mixed feeds (H. R. 8432) will merely add to the cost of feeds without benefiting the users thereof. For instance, one section of the bill provides that the manufacturer shall state on the label the name and weight of each ingredient in the mixture. This is costly to the manufacturer and consequently to the user while it is of no value to the latter, who is interested in the

feeding value of the feed rather than in the exact amount of all the things that compose it.

The trouble to the manufacturer lies in the fact that he can't vary the ingredients of his feed without constantly changing his labels. For instance if he gets one lot of cottonseed meal containing 40 per cent protein and another containing 30 per cent it is evident that he must use more of the latter to carry the same percentage of protein in his mixture. The feeder does not care whether the manufacturer uses one or the other so much as he cares for the total protein in the feed and whether it is in digestible form. The feed manufacturers have expressed their willingness to file with proper officials all their formulas, and to have their factories and products inspected for the purpose of insuring feeds equal to guaranties.

ALFALFA PLANTED ALONG STATE ROADS

A plan is on foot to plant alfalfa along the borders of the improved state roads of New York State, wherever soil is suitable. Highway Commissioner Greene, in discussing the plan, states:

"To maintain the shoulders which border the sides of pavements of our roads now costs the state a considerable sum. The shoulders could be improved and be made a source of revenue by being planted with alfalfa. If our shoulders, which are about the width of the blade of a mowing machine, were made to produce alfalfa we could get more tons of hay from them than the average person."

"I am not a farmer nor have I gone into the subject of alfalfa to any great extent, but I have been told that probably 4,000 of the 8,000 miles of improved roads run through lands suitable for raising alfalfa. This would mean that we would have, counting both shoulders a field of alfalfa eight miles long by three feet wide, equaling approximately 3,000 acres. I do not have to point out how economically a crop which can be cut with the wheels of a mower running along a hard pavement can be gathered. I believe it would be at least 25 per cent cheaper to harvest alfalfa from the shoulders of our roads than it would be to get the same amount of alfalfa from an ordinary field."

HAY SITUATION AT CHICAGO

Conditions in the hay trade at the present time are rather unusual. Prices prevailing on the different markets are considered high, but at that the movement is very light.

Today the receipts on the Chicago market, 24 cars; Cincinnati, 22 cars; St. Louis, 30 cars. Under such light receipts a year ago, on any one day on this or the other two markets would have meant an advance from \$2 to \$3 per ton, and it is possible that if such light receipts continue for any length of time, considerable further advance in prices will be the result.

The consuming trade, however, is reluctant to pay the high prices that prevailed last season. They claim that with such a big crop of hay to come forward, there is no occasion for any further advance in prices. On the other hand, those having hay to sell, seem determined to hold and force prices higher.

It would seem to us as though the present prices prevailing on the different markets, especially the Middle West are such as to justify a more liberal movement of hay. We wish to caution those having hay to market, not to hold but to keep moving the same gradually. We fear that too much hay will be held for the spring markets. The ideal way and the most satisfactory to all concerned, would be for the grower to keep moving his hay to the market gradually throughout the season. Under the present system, it is either a feast or a famine. We will have a big run of hay, prices will break, and the movement will stop, and for a while there will be a scarcity and advance in prices. If the growers would keep moving their hay gradually, a more uniform price could be maintained on the different markets.

At the present time, there is a big demand for clover and heavy clover, mixed hay. This is wanted mostly by outside feeders, as such hay at

the present time are commanding prices fully up to that obtainable for timothy hay.—[Albert Miller & Co. in special letter of November 12, 1919.]

HOW MUCH GRAIN TO FEED

Specialists of the United States Department of Agriculture advise poultry keepers to feed about 1 quart of scratch grain and an equal weight of mash (about 1½ quarts) daily to 13 hens of the general purpose breeds, such as the Plymouth Rocks, Rhode Island Reds or Wyandottes, or about 16 hens of the smaller or egg breeds. This would be about 7½ pounds each of scratch grains and of mash daily to 100 Leghorns and about 9½ pounds of each to 100 general purpose fowls. If hens have free range or large yards containing green feed a general purpose hen will eat about 75 pounds of feed in a year, while a Leghorn will consume about 55 pounds in addition to the green stuff which she eats.

HAY STRONG AND SUPPLY MEAGRE IN NEW YORK

BY C. K. TRAFTON

Remarkably peculiar or abnormal conditions have prevailed in the hay trade during the month under review. Undoubtedly it would be an exceedingly difficult, if not impossible task, to remember a much more unique situation. In a broad and general sense existing conditions have been of a character to create dissatisfaction among virtually all concerned. This was by no means strange because the principal market factors have invariably served to restrict business.

Primarily the most potent and far-reaching of these was the protracted strike among longshoremen, marine workers, etc. This was an exceedingly far-reaching and serious affair in view of the fact that it almost wholly put a stop to business on the water front or at railway terminals. It was impossible, or nearly so, to get boats or vessels unloaded or loaded and transportation to or from docks, railroad terminals, etc., was frequently at a standstill. Consequently it was not considered odd that the Railroad Administration placed an embargo on shipments to this port at least as far as grain was concerned and also as to hay via some roads but notably to Brooklyn terminals.

As a result there was occasionally a near hay famine in that quarter and buyers were glad to pay 5 cents a hundredweight more there than at other New York or Jersey terminals. This was manifestly just on account of the fact that in numerous instances it was found necessary to haul hay from Manhattan terminals in order to furnish supplies to Brooklyn buyers. Hence No. 1 timothy in large bales sold as high as \$1.85 there whereas similar hay was quoted at \$1.75 to \$1.80 elsewhere.

In the opinion of many dealers the greatest buoyancy was found in common to good grades, No. 3 and No. 2 having advanced more rapidly than No. 1. However this created no astonishment among experienced members of the trade as they realized that it largely represented a readjustment. In other words both No. 3 and common No. 2 had for weeks or months been selling at an uncommonly big discount compared with No. 1. As stated in former reviews this merely suggested that the supply of low grades was excessive while stocks of choice were inadequate. Recently the offerings were so insignificant that nearly all buyers were compelled to take ordinary to good qualities or go without. Still there are some dealers who incline to the opinion that the greater strength in No. 3 and possibly in No. 2 also was partly attributable to the fact that the general average grading was better so that little of the No. 3 was so poor as it was a month or more ago.

Apparently farmers have had their eyes opened to the danger of sending inferior or poor trash to this market. As often stated it has generally been almost impossible to sell them for more than enough to pay freight and other charges. It was evident lately that with less trash arriving buyers were more willing to take No. 3 or ordinary No. 2 freely and particularly when there was actually no No. 1 on offer. In view of the facts described it was small wonder that business in general was lifeless and values frequently doubtful.

Nearly all unprejudiced traders are anticipating no material declines in hay or straw in the near future partly because lake, canal and river navigation is about over for the season and nearly all advices suggest a scarcity of freight cars which are being chiefly taken for wheat; after that for corn or other grains.

[Hay, Straw and Feed Continued on Page 445]

HENRY H. FREEMAN & CO.

Hay, Straw and Grain
COMMISSION MERCHANTS

Correspondence and Consignments Solicited.
Market Reports on Application.

66 Board of Trade

CHICAGO, ILL.

Alfalfa, Prairie Hay and Alfalfa Meal

are being harvested under ideal weather conditions. Prices have struck bottom. Buy and store now. Get our delivered prices.

CARLISLE COMMISSION COMPANY

736 Live Stock Exchange Kansas City, Mo.

A	ALFALFA	A
L	We are the Largest Distributors	L
F	of ALFALFA in	F
A	GREATER NEW YORK	A
L	Shippers who have Alfalfa Hay to dispose of, if they will	L
F	communicate with us we will provide a satisfactory outlet.	F
A	ALFALFA	A
A	W. D. Power & Co., 12-15 N.Y. Hay Exchange	A
	NEW YORK	



8½ Miles of It

Extending, when unrolled, in a continuous line 8½ miles long, and weighing over 130 tons, we recently shipped what was, perhaps, the largest single order of Belting ever shipped out of a Rubber Factory.

This record shipment—which would stretch from the Battery to well above the top end of Central Park—covering the whole teeming center of New York City—we made on the order of James Stewart & Co., for the enormous new Terminal Grain Elevator they are building for the Pennsylvania Railroad at Canton, Baltimore, Md.

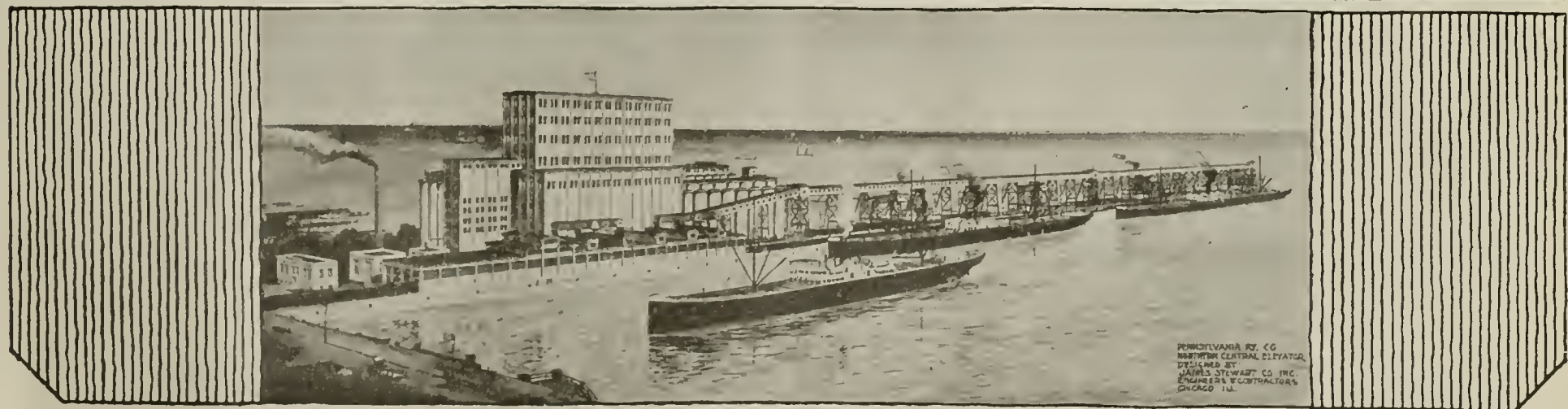
Goodrich “LEGRAIN” and “CARIGRAIN” Belts are installed in large and small Elevators all over the country. We believe we have developed Rubber Belts for Grain Handling to a higher standard than has ever before been attempted.

We await your request for samples and detailed information.

THE B. F. GOODRICH RUBBER COMPANY
The City of Goodrich—AKRON, OHIO

GOODRICH
“LEGRAIN” BELT

GOODRICH
“CARIGRAIN” BELT



PENNSYLVANIA RY. CO.
NORTHWEST CENTRAL ELEVATOR
DESIGNED BY
JAMES STEWART CO. INC.
ENGINEERS & CONTRACTORS
CHICAGO, ILL.

FIELD SEEDS

SEED EXPORT BUSINESS

During the 12-month period ending July, 1919, seeds exported to Canada by the United States aggregated \$1,932,765; compared with \$2,077,089 of the year previous. The business in seeds exports and imports between France and the United States amounted during 1918 to 1,565,000 francs.

NEW SEED TRADEMARK

The following new seed trademark was recently published in the *Official Gazette* of the United

PINNACLE

States Patent Office: "Pinnacle" seeds. American Mutual Seed Company, Chicago, Ill. Filed August 15, 1918. Serial No. 112,723.

IMPORTING CANADIAN SEED WHEAT
AND OATS

An import license from the United States Wheat Director, 42 Broadway, New York, or one of his branch offices, is necessary to import seed wheat from Canada. The form needed is Application for Import License Form Z. There is no import duty on wheat. Seed oats carries an import duty of six cents per bushel, the same as that on oats imported for any other purpose. Oats, however, does not come under the jurisdiction of the Wheat Director, and no import license is required.

FORAGE PLANT SEED IMPORTED DURING
OCTOBER

The following table prepared in the Seed Laboratory of the Bureau of Plant Industry, United States Department of Agriculture, shows the amount of the various kinds of forage plant seeds

Kind of Seed.	October, 1919.	October, 1918.	4 months ending Oct. 31, 1919.	4 months ending Oct. 31, 1918.
	Pounds	Pounds	Pounds	Pounds
Alfalfa	1,092,700	54,700	4,003,700	76,700
Blue grass: Canada.....	25,200	7,800	219,100	56,500
Clover:				
Alsike	1,337,400	1,293,400	2,446,200	2,343,600
Crimson	478,000	66,000	4,550,200	220,100
Red	510,400	200	3,008,300	43,800
White	11,200		11,200	
Clover mixtures:				
White and alsike.....	6,300	7,500	6,300	37,500
Red and alsike.....	700		700	
Millet: Broom corn.....			225,400	
Mixtures: Grass		100		100
Orchard grass	317,300		755,600	
Rape	184,800	200	184,800	152,100
Red top		4,100		4,100
Rye grass:				
English	47,400	115,300	181,800	305,900
Italian	26,400	2,600	104,800	18,300
Timothy		1,100	3,200	41,500
Vetch:				
Hairy	26,300	20,300	76,300	187,400
Spring	4,300	21,400	149,100	21,400

subject to the seed-importation Act permitted entry into the United States during the month of October, 1919, and during the four months ending October 31, 1919, as compared with the corresponding periods in the previous year. (See table above.)

TOLEDO A WINTER RESORT FOR CLOVER

"Good deal of seed usually comes to Toledo to spend the winter," says Southworth & Co., of Toledo, in their *Weekly Market Review*. "Likes to pass the cold spell in the midst of a great city. Fall receipts usually heavy. Seed accumulates here awaiting the spring demand. Toledo is well equipped with seed facilities.

"This year's receipts have been small. Reflects lack of carry-over and small crop in Central States. Lack of big supplies has helped maintain prices at high level.

"March seed year ago showed good advance during November. Declined in December. When demand opened up after January prices firmed and were on the up-grade to the end of March, closing at the highest point. Prices year before followed same course after first of the year.

"Seems to us that clover is due for some decline," writes seaboard firm, "especially should receipts increase. We are still having good inquiries on imported clover, largely for November and December shipments. Trade in general seems to be taking on this imported clover freely." New York reports no imports of red clover during week.

"High prices discount a whole lot of scarcity," said observer today. "At same time seed looks worth the money, compared with other farm commodities. Some interior dealers are holding seed with the expectation of selling it to the farmers

later on at a good price. Some remember their experience of last year when they sold their seed and had to buy it back later at higher prices."

"Effect of peace is a question. Even if a lot of clover is imported it can all be used, is one opinion, based on the under supply of domestic seed to meet normal needs.

"Timothy is a quiet affair. Receipts light. Heavy movement is over."

"SEED REPORTER" DISCONTINUED

The *Seed Reporter*, which has been published by the Bureau of Markets Seed Reporting Service since November, 1917, has been discontinued. This publication was started as the official organ of the Seed Reporting Service, which was a war emergency service, conducted under the Food Production Act. It was continued after June 30, 1919, under the regular appropriation for the Department of Agriculture. Hereafter the seed reports of the Seed Reporting Service will be included in the new *Market Reporter*, which probably will be published monthly by the Bureau of Markets, beginning with the November number.

NEW YORK SEEDS MARKET LESS ACTIVE

BY C. K. TRAFTON

Immediately subsequent to our last review the New York market for field seeds was characterized by activity and strength in four leading varieties, red clover, alfalfa, red top, and fancy Kentucky blue grass. This was especially gratifying to those traders of long vision who had backed up their predictions of higher prices for these varieties by stocking up freely months ago.

Latterly, however, and especially with November's advent, the market on the whole relapsed into the customary autumnal dullness. This was

33 to 35 cents c. i. f. New York, against 28 to 31 cents a month ago. According to Italian advices, large quantities of the new crop have been taken by German buyers.

Red clover has been next in point of strength, a gain of \$3 per hundred pounds putting it on a new high record basis, \$48 to \$50. The import movement was again large, about 13,000 bags for the month, bringing the total thus far to about 10,000,000 pounds, but as the bulk of the arrivals were sold in advance supplies available on spot have been meager. Owing to exhaustion of European stocks further import buying has been practically out of the question. This applies especially to France, whose crop cannot be described even as "middling." Consequently the larger dealers in Paris have withdrawn offerings entirely, while the meagre quantities available in smaller outside markets have been light at \$46 for fair average quality and \$48 to \$49 for choice, both c. i. f. New York November-December shipment. Quotations a month ago were \$42 for old crop and \$44 for new.

While alsike did not share in the activity, it did in the advance, prices averaging about 3 cents higher. Indeed, the situation is regarded as strong and healthy, although it is too early for any marked activity. Some anxiety to take in liberal profits has led some speculative holders to offer rather more freely, making the market seem soft in spots, but there is no evidence that any of the larger lines have been dislodged. Strong holders are still convinced that prices will go to a premium over red clover before long. There are signs of an improved foreign demand and several round lots have been shipped to northern Europe. British buyers, however, have held off because of the high prices and the continued weakness in sterling exchange.

On the surface timothy prices show no change, but a slightly easier undertone is evident in some quarters as a result of continued inactivity. Inquiry from abroad is still disappointing, buyers holding off for lower prices, which lends color to claims that Europe has a fair supply. Although slightly over 700 bags were shipped to Great Britain, there have been no signs of interest among Continental buyers. As stated in previous reviews, some dealers contend that in view of the large old crop reserves and the liberal new crop, prices have been raised to fictitiously high levels by speculative buying. These people now assert that it is time that the predicted heavy export movement was starting if the seed is to reach the Continent for distribution early in 1920.

Prices for red top are about 2 cents higher in the face of the non-appearance of a notable export demand. There has been a good domestic demand, partly because the new crop is not coming up to earlier expectations. As desirable lots have been difficult to find below 18½ to 19 cents it is evident that the large carry-over has gone into strong hands. The confidence of these holders is demonstrated by the absence of liquidating pressure although resales in some cases would show a profit of fully 6 cents.

Sunflower seed has started the new season at about 10½ to 11 cents shipping point, or 1½ to 2 cents above early expectations. Disappointing crops are indicated in the chief producing sections of California and Missouri and nothing has been heard of additional offerings from abroad. Although rapeseed has been quiet, prospects are for higher prices rather than lower in the opinion of conservative dealers. Owing to heavy oil-pressing demands early in the season supplies are small in the Orient and offerings for November-December shipment from Manchuria are on a basis of 8 to 8¼ cents c. i. f. Pacific Coast ports.

Canary seed has been arriving in fairly large volume from abroad and hence spot supplies have been ample. Prices are about unchanged at 8 cents per large lots and 8¼ cents for small. Fancy Kentucky blue grass was in good demand early in the month and prices are about 1 cent higher. Crimson clover has been inactive and practically unchanged. Orchard grass is about 2 cents lower. Imports during the month were about 2,650 bags. Field peas are unchanged at 6 to 6½ cents.

A building at Grand Junction, Colo., has been acquired by the Grand Junction Seed Company. The firm will remodel it and equip it for seed storage and seed handling.

The State Seed Company of Oklahoma City, Okla., and the Ferguson Seeds Farms of Sherman, Texas, have consolidated. J. F. Hickey is to be manager of the Ferguson Seed Farms. C. W. Offutt will be Oklahoma City manager.

The H. T. Clark Company, seed dealers of Massena, N. Y., has changed its name to the Clark Hardware Company. Edw. B. Crosby and Robt. B. Dewey are co-partners. There has been no change in its business policy.

An addition is to be erected to the Greensprings, Ohio, warehouse of Oatman & Monfort of Cleveland, Ohio, in which the firm will store and dry seed corn on the ear. The warehouse will have storage capacity of 10,000 bushels.

[Field Seed Notes Continued on Page 444]

Repeat Orders Tell The Story

They're coming in with a rush from scores of Ankorite dealers. Dealers who began by ordering a few hundred posts are now ordering carload lots—by wire!

We've been obliged to double and re-double our output to take care of them—and we'll have to double it again within the next six months. Dealers who used to sell wood posts have switched to Ankorite and they're making dollars where they used to make dimes!

Thousands of posts will be needed in your territory

CALUMET STEEL COMPANY, 208 South La Salle Street, Dept. 6, Chicago

Ankorite
STEEL FENCE POST

during the next five or six months, and you can get more than your share of the business by securing exclusive sales rights for Ankorite Steel Posts.

Other dealers have had remarkable success with them—why not you?

Farmers want Ankorite Posts and you are the logical dealer to supply them. Small investment—quick turn-over—you buy them direct from the mill.

Territory is being closed fast—you can hold yours open and secure exclusive sales rights if you'll write NOW. Don't put it off.



The Mill Behind the Post

This big, modern steel mill has a capacity of forty thousand posts a day—enough to build 125 miles of fence. We can make immediate shipment in any quantity.

A STROKER for You

A stroker is a weapon specified by the Department of Agriculture to be used in striking off the grain from the top of the grain kettle used in determining the bushel-weight of grain. It must be of "hard wood, $\frac{3}{8} \times 1\frac{3}{4} \times 12$ inches, with the edges formed to a semicircle."

We have them for

Free Distribution

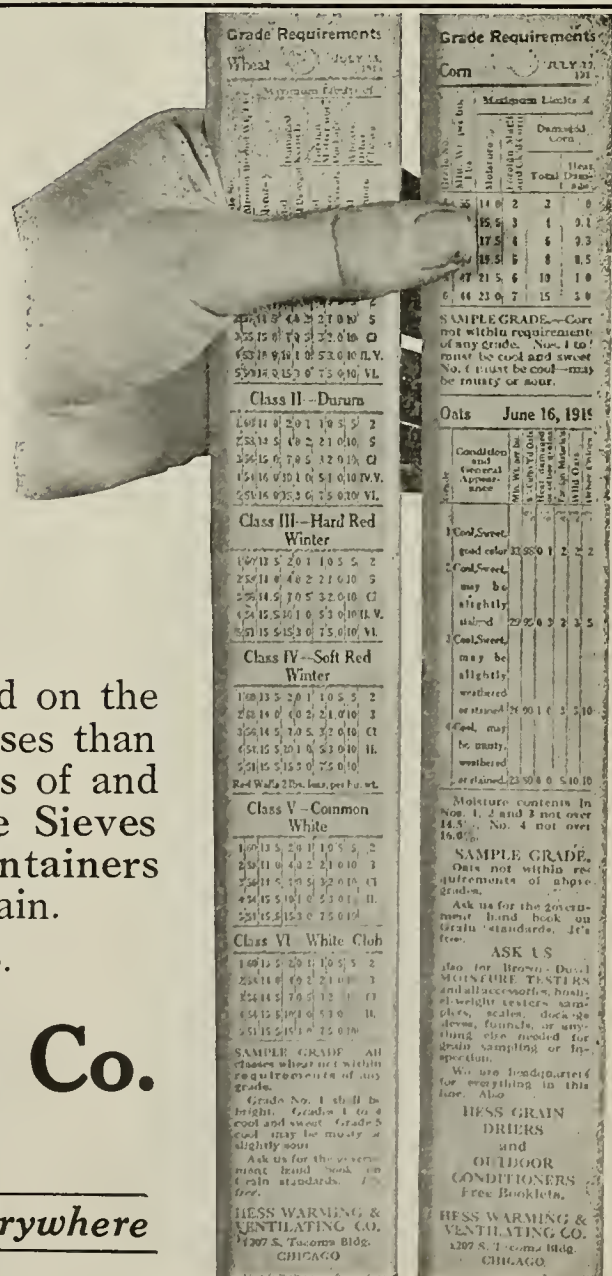
On one side are printed the grade requirements of wheat, and on the other those of corn and oats, so it is useful for other purposes than as a stroker. Its best use is to remind you that we are makers of and headquarters for Brown Duvel Moisture Testers, Dockage Sieves and Scales, Bushel-weight Grain Testers, Probes, Sample Containers and all other apparatus used in the testing and grading of grain.

Send for a Free Stroker—Your name on a postal card will do.

Hess Warming & Ventilating Co.

1210 Tacoma Bldg., Chicago

Makers also of HESS GRAIN DRYERS—Used Everywhere



Grade Requirements

Wheat JULY 11, 1919

Minimum Limits of

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Grade Requirements

Corn JULY 11, 1919

Minimum Limits of

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

Shrinkage, Moisture, and Heat

FIELD SEED NOTES

(Continued from Page 442)

H. S. Hodge & Sons are conducting a seed business at Palatka, Fla.

A large brick seed warehouse is to be erected at Maysville, Ky., for the Monarch Milling Company.

The seed business of the Rumble & Wensel Company at Natchez, Miss., has been discontinued by them.

A modern seed warehouse costing \$40,000 is to be erected at Beatrice, Neb., for the Pease Grain & Seed Company.

The Ross Bros. Seed Company of Wichita, Kan., has amended its charter, increasing capital stock from \$50,000 to \$100,000.

Chas. W. Witbeck is now connected with the Everette R. Peacock Company of Chicago, Ill. Mr. Witbeck is well known among seedsmen.

A three-story brick building at Reading, Pa., has been purchased by A. W. Masser's Seed House. The company will use it to take care of its seed business.

A seed business is to be conducted at St. Louis, Mo., for the Fitzsimmons & Hertel Company. Offices are at 339 Pierce Building. B. J. Fitzsimmons and F. Hertel are interested.

The Midland Seed Company has been incorporated at Billings, Mont., capitalized at \$50,000. W. H. Sparr, D. L. Chambers, R. Brown and others are interested.

Arthur G. Lee of Ft. Smith, Ark., has made plans for the erection of a modern four-story and basement warehouse. It will be used for his retail and mail order business and general offices.

An old elevator at Winona, Minn., has been purchased by the Northern Field Seed Company which will overhaul it and establish a first-class seed warehouse there. The improvements will cost \$15,000.

The capital stock of the Louisville Seed Company, Louisville, Ky., has been increased from \$100,000 to \$250,000. The company will move into a larger warehouse, equipped with modern cleaning devices.

W. A. Garrabrant of Kansas City, Mo., will reopen the business of the Ozark Seed Company of Nashville, Ark., which was recently placed in the hands of a receiver. The purchase price for the property was \$6,000.

A. C. Johnson, Chas. A. Heath, H. A. Abbott, D. W. Hales, C. U. Snyder, A. E. Reynolds and H. W. Boughten have incorporated the Continental Seed Company of Chicago, Ill. The capital stock of the firm is \$500,000. The men interested in this company have long been in the seed business in various states and are well and favorably known. C. A. Heath is president; H. W. Boughten, vice-

president; H. A. Abbott, secretary; assistant secretary, W. D. Collins; treasurer, C. A. Johnson; assistant treasurer, Geo. Rumbold.

An addition is being built to the office of the Wing Seed Company of Mechanicsburg, Ohio. A new and larger warehouse will also be built.

Grain and Seeds

WANTED

White Blossom Sweet Clover, also Alfalfa Seed. Mail Samples to WALTER G. TRUMPLER, Tiffin, Ohio.

SCREENINGS WANTED

Screenings from corn, barley, wheat.

Oat clip, elevator dust, seed screenings.

We buy bulk or sacked.

Send average sample and quote delivered price.

GEORGE B. MATTHEWS & SONS, 412-430 S. Front St., New Orleans, La.

WE BUY Timothy Clovers Alfalfa Grasses

SUDAN — MILLET — CANES — WHEAT —
OATS — BARLEY — RYE — SPELTZ
SEND US YOUR SAMPLES
WE PAY HIGHEST PRICES

John A. Salzer Seed Co.
LA CROSSE WISCONSIN

**White Clover
Orchard Grass
Tall Meadow Oat Grass
Rye Grass
Hairy Vetch**

Wm. G. SCARLETT & Co.
BALTIMORE, MD.

SEND SAMPLES OF

Timothy, Red Clover, Alsike, Red Top, Hairy Vetch, Bluegrass, Orchard Grass Seed, Rye and Winter Oats

to

The Belt Seed Company

Importers and Exporters

BALTIMORE

We can offer D. E. Rape, Imported Orchard, Alfalfa, Crimson Clover and Red Clover.

We Buy Carlots

**TIMOTHY
RED TOP
RED CLOVER
SUNFLOWER
MILLET**

Send us your samples

WE IMPORT AND EXPORT

I. L. RADWANER SEED CO.
NEW YORK, U. S. A.

MINNEAPOLIS SEED CO.

WHOLESALE FIELD SEEDS

**HARDY NORTHERN GROWN SEEDS
OUR SPECIALTY**

BUYERS, RECLEANERS, SELLERS

ASK OUR BIDS BEFORE SELLING

WRITE OR WIRE FOR SAMPLES AND PRICES

TIMOTHY, CLOVERS, MILLETS

GRASSES, FORAGE SEEDS, SEED GRAINS,
PEAS, BEANS AND SCREENINGS.

P. O. ADDRESS: LOCK DRAWER 1546

OFFICES: 3444 RAILROAD AVE. SO.

SEED ELEVATOR & WAREHOUSES: 34TH TO 35TH STS. & R. R. AVE. SO.

GRAIN ELEVATORS & WAREHOUSES: 35TH TO 37TH STS. & R. R. AVE. SO.

MINNEAPOLIS, MINN.

REGISTERED BRANDS



SEED

We buy and
sell all varieties
of grass and
field seeds

The Albert Dickinson Co.
MINNEAPOLIS CHICAGO

SEEDS Grain, Clover and Grass Seeds

CHAS. E. PRUNTY

7, 9 and 11 South Main St. SAINT LOUIS

A. W. SCHISLER SEED CO.

LET US KNOW YOUR WANTS IN
FIELD AND GARDEN SEEDS

Office: 704-6-8-10 North 4th St.

ST. LOUIS, MO.

Track Warehouse: S. W. Cor. Collins and Biddle

**TIMOTHY SUDAN
ALFALFA
FEED MILLET** **RUDY PATRICK
SEED CO. KANSAS
CITY, MO.**

WHITNEY-ECKSTEIN SEED CO.
Wholesale Seed Merchants
Correspondence Invited **BUFFALO, N. Y.**

Hay, Straw and Feed

(Continued from Page 440)

CAMPAIGN FOR COTTONSEED HULLS

An aggressive campaign has been inaugurated by a cottonseed products concern of Atlanta, Ga., the Taylor Commission Company, to push the feeding of cottonseed meal and hulls, especially hulls for feeding stock and dairy cattle. In addition to carrying advertising space in the leading stock and dairy papers this concern is using space in the leading daily papers in the stock and dairy states.

J. H. Taylor, president of the company, hit upon a unique and effective plan to introduce hulls and secure their trial without cost to the feeders. In every car of cottonseed products shipped by the Taylor Commission Company a sack of hulls is included free of charge. The secretaries of the Crushers' Association in Georgia and the Carolinas are co-operating, and a number of individual cotton seed crushers are also joining in the plan.

RAIN INCURS LOSS IN CURING HAY

Tests conducted at the Ohio Experiment Station in curing alfalfa and clover hay show that when rain washes over the dried crop the hay loses more than one-half of its value due to the leaching of the rain water. Dried alfalfa in one test lost 50 per cent of its nitrogen, 75 per cent of its phosphorous, 90 per cent of its potassium and 40 per cent of its calcium.

The decreased value of the crop by loss of leaves due to careless handling is also considerable, as it is estimated that 60 per cent of the weight of alfalfa and 80 per cent of the total protein, the most valuable constituent, is contained in the leaves.

Curing alfalfa or clover hay largely in the cock tends to reduce the loss of leaves by shattering.

A new feed store has been opened at Houston, Mo., for Slayer & Co.

A new feed and flour warehouse has been built at Ladysmith, Wis., for W. D. Morgan & Co.

The feed business of Queen & Mirando at Ashland, Ky., has been taken over by G. N. Wellman.

Pillmore & Streeton have succeeded Chas. Pillmore in the feed and flour business at Rome, N. Y.

The Norwich Milling Company has purchased the feed and flour business of H. O. Hale at Norwich, N. Y.

W. A. Merrell's interest in the hay and feed business at Snyder, Texas, has been purchased by the Henderson Bros.

The capital stock of the Morrow Feed & Supply Company at Morrow, Ohio, has been increased from \$25,000 to \$50,000.

The Ada (Okla.) Flour & Feed Company has been incorporated capitalized at \$20,000. L. E. Pettigrew is interested.

Everett Gilbert's interest in the feed and produce business of G. F. Gilbert at Marshfield, Mo., has been sold to his brother, Fred.

A wholesale feed and flour business has been started at Springfield, Ill., by Harry Webb, a well-known Springfield business man.

The feed handling business of the Hartford Co-operative Company at Hartford, Wis., has been purchased by the Dennison Store Company.

A feed and flour warehouse is to be erected at Litchfield, Minn., as announced by G. S. Skeim, manager of the Equity Co-operative Elevator Company.

The Newsome Feed & Grain Company, whose main office is at Pittsburgh, Pa., has opened an office at Minneapolis, Minn., in the Corn Exchange Building.

Chas. Knox's interest in the feed, seed and coal business of Knox & Treeman at Perry, Okla., has been purchased by Mr. Munger. The firm will now operate as Treeman & Munger.

To handle feed and flour, the Reid Company has been incorporated at Gapland, Md. The capital stock of the firm is \$6,000. James and D. M. Reid and L. R. Lourtee are interested.

The feed, flour and coal business of C. E. Crang at Clinton, Ill., is to be conducted under the management of F. A. Roberts, who was formerly engaged in the feed, grain and coal business there.

Forest H. Meeks, Hugh Williams and Morris McCoy have filed incorporation papers at Richmond, Ind., as the Hoosier Feed & Feeder Company. The company will conduct a grain elevator. It is capitalized at \$10,000.

Under date of October 25 a promissory note was sent out by the well-known Chicago hay firm, Albert Miller & Co., for the payment "on demand" of "undivided attention to hay shipments of—(name of firm)—with interest at 7 a. m. every business day of the year." On the reverse side of the note was the advice that "You can cash in on this if

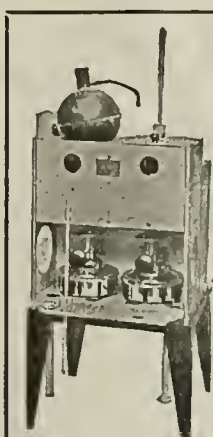
you get the habit of thinking Albert Miller & Co., whenever you think of hay." This is a most unusual and attractive substitute for the stereotyped circular letter.

The Northwestern Feed Company has completed its new warehouse at Minneapolis, Minn., which will give the company 24,000 additional feet of floor space. This gives them facilities for shipment of 40 mixed cars daily.

The Commercial Feed Company has been organized at Minneapolis, Minn., by S. N. Osgood, 112 Corn Exchange. He was formerly identified with the Pillsbury Mills at Minneapolis and had recently conducted a feed and flour business at Chicago.

Joseph Goldberg of Rhinelander, Wis., and Harry Goldberg have organized the Langlade Wholesale Grain Company of Antigo, Wis. Joseph Goldberg has for several years conducted a retail feed and flour business at Rhinelander, which will also be continued.

The hay business of Joe Ycarsley, the Mt. Victory Coal Company and Hathaway & Fraber, stock dealers of Mt. Victory, Ohio, recently consolidated under the name of the Farmers Exchange. The Exchange will handle hay, straw, seeds, livestock, coal, etc., and will do grinding.



BUY THIS TESTER BECAUSE

- It is made according to Government Specifications.
- It is the most complete outfit on the market.
- The Thermometers are certified.
- It is equipped with "Pyrex" Glass or Copper Flasks.
- The Special Oat Graduate as well as the Regular Graduates are included.
- It is heated with Electricity, Alcohol or Gas.
- The electrical equipment is fully guaranteed against all defects.
- It is approved by the Mutual Fire Prevention Bureau.
- It will pay for itself many times in a season.

FLINT BROWN DUVEL

MOISTURE TESTER

MANUFACTURED BY
DE ROO GRAIN LABORATORIES
FLINT, MICH.

Its cost is very reasonable.

Ask for full information

Wanted

Married man, 32 years, college graduate, anxious to connect with firm desiring the services of a consignment solicitor.

OR

will consider offer of partnership in elevator, mill or both.

ILLINOIS, Box 11, care "American Elevator and Grain Trade," Chicago, Ill.

Miscellaneous Notices

[Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.]

WANTED

Draftsman on grain elevators. Eastern location. State age, experience and salary desired. DRAFTSMAN, Box 9, care "American Elevator and Grain Trade," Chicago, Ill.

FLOUR AND MILL FEEDS

Mixed cars of flour and mill feeds in 100-pound sacks are our specialties. Would like to send you a trial order to convince you of the superiority of our products. ANSTED & BURK CO., Springfield, Ohio.

FOR SALE

Nine-column visible adding and listing machine, in perfect working order. Guaranteed for nearly a year. Cost \$375; will take \$100 for it, or Liberty Bond. Also Underwood Typewriter; has back-spacer, tabulator, two-color ribbon. Perfect condition; \$50. Will ship either machine upon deposit of \$10. MEIER SEED COMPANY, Russell, Kan.

For Sale

[Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.]

ELEVATORS AND MILLS

FOR SALE OR EXCHANGE

For town property or farm, an Ohio country elevator handling 300 cars of grain, hay and merchandise. Price \$4,500. H. F., Box 8, care "American Elevator and Grain Trade," Chicago, Ill.

FOR SALE OR TRADE

First-class elevator in northeastern Kansas, 20,000 bushels' capacity; handles 100 cars of grain per year. New cleaner and sheller; wagon scales, good as new; automatic loading scale; five-bin coal house and excellent coal trade. Price on application. KANSAS, Box 11, care "American Elevator and Grain Trade," Chicago, Ill.

MACHINERY

FOR QUICK SALE

Fairbanks Track Scale, 100-ton, 50-foot, type registering beam. Overhauled this year and as good as new. Price \$500, f. o. b. Omaha. AMERICAN SUPPLY & MACHINERY COMPANY, Omaha, Neb.

FOR SALE

One 20-inch Monarch Attrition Mill, plain bearing, \$125; one 26-inch Foss Attrition Mill, double head, \$200; one 24-inch Sprout-Waldron Attrition Mill, double drive, plain bearing, \$160; one two-pair-high 9x24 Ypsilanti Feed Mill used 90 days, \$300; elevators, 4x6 cups, cotton belting, head and boots with pulleys, 40-ft. centers, \$60 each; 3x3½-inch cups, elevators complete, 40-ft. center, \$40 each. We have a large assortment of mill outfits, automatic scales. Write for our catalogue; our prices are right. Machinery is good, although used, and we make immediate shipment. MILLS MACHINERY EXCHANGE, 201 Millers' & Traders' Bank Building, Minneapolis, Minn.

BAGS

FOR SALE

Two thousand second-hand cotton grain bags. Hold 2½ bushels of wheat. Price 25c each, f. o. b. St. Louis. FOELL & CO., 123 Market St., St. Louis, Mo.

FOR SALE—BURLAP BAGS OF EVERY KIND

New or second-hand, plain or printed with your brand; seamless cotton grain bags; sample bags; burlap, cotton, sheeting, or paper for car lining, etc.

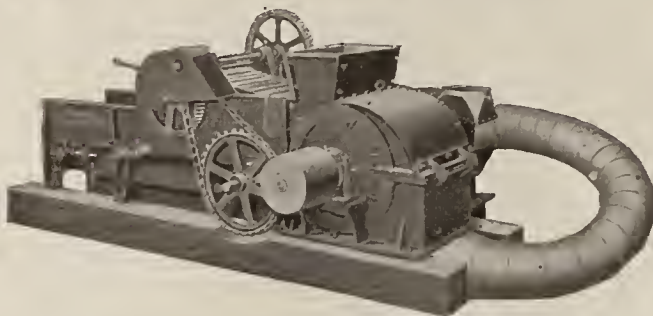
Wanted: Second-hand bags; best prices paid. WILLIAM ROSS & CO., 409 N. Peoria St., Chicago, Ill.

Revolutionize Your Feed Plant

Gruendler Ball Bearing Grinders reduce cost of manufacturing all kinds of animal food—whether fine or coarse. Have "set the pace" for all other feed grinders. Every part is interchangeable. They are built in various sizes—up to 12 tons per hour, if desired.

Gruendler Grinders

Deliver an absolutely uniform ground product without adjustments. No particle of the ingredients will get by a Gruendler without being reduced to the proper size. Cost of maintenance is less than 1/16th of a cent per ton.



The cut above shows our latest combination hopper and automatic feed grinder, especially for use in feed plants manufacturing highest grade Alfalfa Meal, Dairy Food, Hog Feed or any other product to be ground to a uniform fineness. Send for illustrated circular giving specifications, prices and particulars.

A few of the materials handled by the Gruendler are Alfalfa Hay, Bagasse, Beans, Barley, Beef Scrap, Blood, Buckwheat, Hulls, Chaff, Cocoa Shells, Cottonseed Oil Cake, Coffee, Cereals, Corn Cobs, Corn Stalks, Clover Hay, Corn-Bran, Fish Meal, Kaffir Corn, Maize, Black Oats, Wheat Bran, Screenings, Snapped Corn in the Shuck, Peanut Shells, Velvet Beans, Soy Beans and Middlings.

Durable-Economical

Let us prove our claims. There is a Gruendler waiting for you, on 30 to 60 days trial. Should it not make good—your money back. We have built over 200 complete feed grinding and mixing plants. There are more than 5,000 Gruendler mills in daily operation—all giving satisfaction.

GRUENDLER PATENT CRUSHER & PULVERIZER CO., 925 Main St., St. Louis, Mo.

Randolph Grain Driers

DIRECT HEAT OR STEAM CONTINUOUS FLOW MADE IN ALL SIZES

WIRE WRITE PHONE O. W. RANDOLPH CO. TOLEDO OHIO U.S.A.

UNIVERSAL GRAIN CODE

(and Mill Feed Supplement)

COMPILED FOR USE OF

GRAIN and MILLING TRADES

OF THE

United States and Canada

This Code meets the present day requirements of the grain and milling trades—is up-to-date in every respect and thoroughly covers the changes in methods and business that have come into use of late years.

The translation expressions and tabulated matter is a great improvement upon any public grain and milling code now in use, and is an assured factor in saving

telegraph tolls and misunderstandings in telegraphing.

The Universal Grain Code is being used by many hundreds of the most active firms in the country.

A list of Code Users is sent gratis with every copy of the Universal Grain Code, the names and addresses being published free of charge.

Send for a Copy Now. Price \$3.00.

MITCHELL BROTHERS PUBLISHING CO.
431 S. Dearborn Street CHICAGO, ILL.



RID- of- RATS

If we want to feed starving Europe it behooves us to kill off Rats and Mice that destroy foodstuffs to the value of about \$500,000,000.00 per annum. Use Rid-of-Rats. It is non-poisonous and can be used everywhere. No stench creating dead bodies. Rodents leave premises before dying. Only patented Non-Poisonous Exterminator in the World. Made only by the Patentees.

Price—15 cents per box, \$1.80 per doz., \$1.00 per lb. in bulk.

BERG & BEARD MFG. CO., Inc.

100 Emerson Place

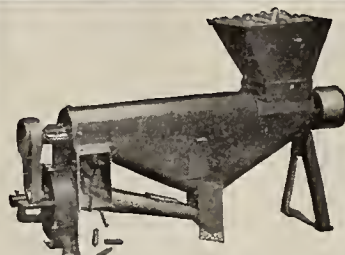
Brooklyn, N. Y.

Milling Kinks

The latest book for grain elevator operators and millers. Just off the press and ready for delivery. A companion book to the Book of Wrinkles. Contains 169 illustrated devices assembled and classified for ready reference.

PRICE \$1.00 POSTPAID

Mitchell Bros. Publishing Co., 431 S. DEARBORN ST. CHICAGO - ILLINOIS



Style A Triumph Sheller

MODERATE IN PRICE

Triumph Corn Shellers shell corn thoroughly without breaking the cob or the kernels. They are well built and dependable yet moderate in price because of their simplicity.

Bulletin with complete information upon request.

THE C. O. BARTLETT & SNOW CO.
CLEVELAND, OHIO

Transit Leaks

are unknown to the grain shippers who use

KENNEDY Car Liners

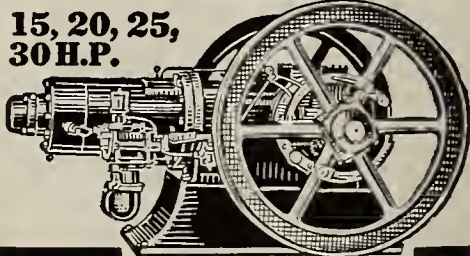
Enormous Increased Sales prove the Efficiency, Merit and Serviceability of these liners.

The Kennedy Car Liner

is the only device offered the grain shipper that makes a car Leak-Proof. Cheap—Modern—Profitable. Write now for particulars.

THE KENNEDY CAR LINER & BAG CO.
Shelbyville, Indiana, U. S. A.

15, 20, 25,
30 H.P.



Dependable Power From Cheapest Fuel

Here is an engine that will operate for long periods, using as fuel any of the cheaper grades of distillate, fuel or crude oils, assuring the most dependable power and show an immense saving in the power costs of Flour and Grist Mills, Grain Elevators, Cotton Gins, Oil Mills, Municipal Water and Electric Light Plants, where 15, 20, 25 or 30 H. P. is required.

It maintains lowest fuel consumption. As near completely automatically lubricated as possible. No water injected into combustion chamber, thereby maintaining low temperature and better lubrication of cylinder and piston. Perfect crank compression at all times. Quick starting. Sensitive governor, close, accurate speed regulation. Extra large bearing surfaces tend for long service and low maintenance cost. Simplicity of parts. Can be operated for long non-stop runs with minimum attention from operator.

FREE ENGINE BOOKLET
Write for it TODAY.
STOVER MFG. & ENGINE CO.
Lake Street, Freeport, Ill.

Also Mfrs. Stover Samson Windmills, Pump Jacks. Est. 1862. Free Catalog.

STOVER
FUEL-OIL ENGINE

MILLERS' MUTUAL FIRE INSURANCE ASSOCIATION OF ILLINOIS

Established 1878 Alton, Illinois
Insurance on Flour Mills and Elevator Properties.

Grain Insurance for short terms a Specialty.

CASH ASSETS - \$1,007,626.53

G. A. McKINNEY, Sec'y

GIBBS' PATENT DUST PROTECTOR



is invaluable to operators in every industry where dust is trouble some, affording perfect protection with perfect ventilation. Thoroughly tested for many years in every kind of dust. Nickel-plated protector \$1.25. Canada \$1.50, post paid. Circulars free.

GIBBS RESPIRATOR CO. "B"
284 Lake St. River Forest, Ill.

LEATHER RUBBER BELTING CANVAS STITCHED

An Enormous Stock of New and Used Power Transmission Machinery, Belting, etc.

TEUSCHER & SON MACHINERY SUPPLY CO.

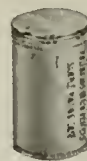
527 N. Second St. St. Louis, Mo.
Send for No. 18-L Bargain Book

SCALES REPAIRED AND SOLD

50 wagon scales, capacity from 4 to 15 ton. Any size platform in following makes: Fairbanks, Howe, Buffalo, Standard and Columbia. Each scale that leaves our factory is thoroughly overhauled and tested and guaranteed to be correct. We furnish competent men for outside work.

COLUMBIA SCALE CO.

2439 N. Crawford Ave. CHICAGO, ILL.



For Accurate Moisture Tests use our Grain Dealers Air Tight Cans for forwarding your grain samples. Write for prices.

ST. LOUIS PAPER CAN AND TUBE CO., ST. LOUIS, MO.

Save Splicing Costs and Delays

by using the Hunt Tension Adjusting Coupling on your rope drive



You can control all rope strength in the English system drive by simply twisting this coupling with rope in position on pulleys.

Ask for Catalog L-15-1, describing the coupling and "Stevodore" Transmission Rope.

C. W. HUNT CO., INC.

West New Brighton, N. Y., U. S. A.

**A Real Protective Paint**

is one that successfully withstands for many years the attacks of rust and corrosion.

DIXON'S Silica-Graphite PAINT

will effectually protect for years, roofs, stacks, fences, etc.

Time tests the efficiency of a paint. We have records of long service given by Dixon's Silica-Graphite Paint in all climates and all kinds of structures.

Protective paint should be bought on "price per year of service" basis, not "price per gallon."

Write for Booklet No. 17-B.

JOSEPH DIXON CRUCIBLE COMPANY

ESTABLISHED 1827

THE SYKES COMPANY

930 West 19th Place, Chicago

MAKERS OF**FIREPROOF WINDOWS**

WE manufacture all gauges of corrugated iron, either painted or galvanized. We make Patent Cap Roofing, Roll Cap Roofing, "V" Crimped Roofing, Metal Ceilings, etc., etc.

We make a specialty of

Corrugated Iron and**Metal Roofing****For Grain Elevators**

And take contracts either for material alone or job completed. Write us for prices. We can save you money.

BOARD
OF
TRADE



DES MOINES



GRAIN
RECEIVERS

Consignments Solicited

We Place Grain to Arrive

SAWERS GRAIN CO.

Chicago

Des Moines

Future Orders Given Personal Attention

TAYLOR & PATTON CO.

Terminal elevator capacity

250,000 bushels. Buyers and

shippers of Corn and Oats

DES MOINES

IOWA

Ankeney Linseed Mfg. Co.

Solicit Offers of Flax

or consign same to

Members Des Moines Board of Trade

W. H. Bartz & Co.

Grain Merchants

Hubbell Bldg.

DES MOINES, IA.

DES MOINES ELEVATOR & GRAIN CO.

Terminal elevator capacity

700,000 bushels. Oats for

Southern Trade a Specialty

DES MOINES

IOWA

MID-WEST

Consumers Grain Co.

GRAIN MERCHANTS

Corn—Oats—Wheat—Barley—Rye

417-418-419 Hubbell Building

DES MOINES

IOWA

CHAMBER
OF
COMMERCE



MILWAUKEE



GRAIN
RECEIVERS

For "UN-X-L-D" Service on CONSIGNMENTS of GRAIN and SEEDS

SHIP THAT NEXT CAR TO

THE FRANKE GRAIN CO.

MILWAUKEE, WIS.

GRAIN-MILL FEEDS

John B. Meigs, Pres. G. C. Holstein, V. Pres. & Mgr.
J. A. Campbell, Secy. and Treas.

Mohr-Holstein Commission Co.

29 Chamber of Commerce
MILWAUKEE

Sample Grain a Specialty

Branch Offices at CHICAGO and MINNEAPOLIS

E. P. BACON CO.

Grain Commission Merchants

Sellers of Cash Grain and
Field Seeds on Consignment

MILWAUKEE—CHICAGO—MINNEAPOLIS

Flanley Grain Company

Milwaukee, Wisconsin

FEEDS AND FEEDING STUFFS

A compendium of animal nutrition and the rational feeding of farm animals set forth in simple, helpful language. Its basis is the extensive investigations with animals in the physiological laboratories of Europe and America and the numerous feeding trials with farm animals conducted by experiment stations, especially those of America, during the last thirty years. To these have been added the experiences of successful stockmen, gathered from the widest sources. The substance of all of the important work of our experiment stations in the feeding of farm animals, as set forth in hundreds of bulletins, is arranged, condensed and made available to the reader. Tenth edition, revised and entirely rewritten. By W. A. Henry, Emeritus Professor of Agriculture, University of Wisconsin, Octavo size, 613 pages, bound in art vellum. Price \$3.00.

Mitchell Bros. Publishing Company

431 S. Dearborn Street
CHICAGO, ILLINOIS

BOARD
OF
TRADE

PEORIA

GRAIN
RECEIVERSCONSIGN YOUR
GRAIN TO

WARREN COMMISSION CO.

If you prefer to sell to arrive, wire telephone for bids.

PEORIA, ILLINOIS

W. W. Dewey & Sons
GRAIN COMMISSION
 26 Chamber of Commerce
PEORIA - - ILL.

P. B. & C. C. MILES
 Established 1875 Incorporated 1910
PEORIA, ILL.
 Handling Grain on Commission
 Our Specialty

Louis Mueller, President F. W. Mueller, Sec. & Treas.
MUELLER GRAIN COMPANY
 (Incorporated)
 Receivers and Shippers
GRAIN
 We Solicit Your Consignments of Grain
 Room 39 Chamber of Commerce, PEORIA, ILL

BUCKLEY & CO.
 COMMISSION MERCHANTS
GRAIN, HAY AND SEEDS
PEORIA, ILL.

References | First National Bank, Peoria, Ill.
 Commercial German National Bank, Peoria, Ill.

Try Feltman Service for Satisfaction
C. H. Feltman Grain Co.
 Grain Commission
 Room 27
 Chamber of Commerce Peoria, Ill.

E. B. Conover Grain Co.
 Receivers and Shippers
GRAIN CONSIGNMENTS
 Peoria, Ill.

Smith-Hamilton Grain Co.
 Grain Merchants
 Peoria - Illinois
 Members Correspondent
 Chicago Board of Trade Beach-Wickham
 Peoria Board of Trade Grain Company
 Grain Dealers Nat'l Assn.

Good Prices and Quick Returns
TRY US
GEO. L. BOWMAN & CO.
 Grain Commission
 Room 24,
 Chamber of Commerce PEORIA, ILL.

Rumsey, Moore & Co.
 GRAIN COMMISSION
 Board of Trade Bldg., PEORIA, ILL.

Robinson Telegraphic Cipher
 Revised Edition
 Cloth Binding \$1.50
 Leather Binding 2.00
MITCHELL BROTHERS PUBLISHING CO.
 431 S. Dearborn Street Chicago, Ill.

L. E. SLICK
 Receiver and Shipper
CASH GRAIN
 PEORIA, ILL. BLOOMINGTON, ILL.

SHAFTING, PULLEYS and BELTING
 By Hubert E. Collins
 An invaluable work for grain elevators, flour mills, or any other place where machinery is installed. Cloth bound.
 Well illustrated. Price \$1.00
 Mitchell Bros. Pub. Co. 431 S. Dearborn St., Chicago

J. A. McCREERY

H. A. McCREERY

J. R. McCREERY

CONSIGN YOUR GRAIN TO

J. A. McCREERY & SONS

Service and Satisfaction Guaranteed.

RECEIVERS AND SHIPPERS

Room 5
Board of Trade Bldg. PEORIA, ILL.BOARD
OF
TRADE

DULUTH

GRAIN
RECEIVERS

YOU Can keep in touch with
 the news and reports of
 the Grain and Elevator
 world by reading the "American
 Grain Trade."

SUBSCRIBE NOW—\$1.00 A YEAR.

WHITE GRAIN CO.
SHIPPERS FANCY OATS FEED WHEAT
 MILL OATS BARLEY
 SCREENINGS RYE

Write for Samples and Quotations

DULUTH

GRAIN
&
HAY
EXCHANGE

PITTSBURGH

GRAIN
RECEIVERSESTABLISHED 1878
F. L. STEWART, PRES.

C. A. FOSTER COMPANY, WHOLESALE GRAIN AND HAY,

701 WABASH BLDG
PITTSBURGH, PA.HERB BROS. & MARTIN
Grain, Hay and Feed
BUYERS--SHIPPERS
Wabash Building, Pittsburgh, Pa.HARPER GRAIN CO.
401 Wabash Building,
Pittsburgh, Pa.
We know how to market grain only.
Modern elevator facilities at your command.OUR **S**pecial **S**ervice **S**atisfies **S**hippers
W.F. HECK & CO.
Car lot buyers and
shippers of
GRAIN, HAY, STRAW, MILL FEED
Try Us For Pittsburgh Market
705 Wabash BuildingESTABLISHED 1872
R. S. McCAGUE, Ltd.
Wholesale
Receivers and Shippers
Corn, Oats, Hay and Mill Feed
417-419 Westinghouse Bldg.
Pittsburgh, Pa.SAMUEL WALTON CO.
Hay—Grain—Mill Feed
Carloads Only
Pittsburgh, Pa. No. 8 Wood St.GEO. E. ROGERS & CO.
Receivers and Shippers
Grain, Hay, Flour and Mill Feed
Experience—Years of it
TRY US ON THAT NEXT CAR
801 Wabash Bldg. PITTSBURGH, PA.PRODUCE
EXCHANGE

TOLEDO

GRAIN
RECEIVERSWhen "SEEDY"
Try
C. A. King & Co.
GRAIN AND SEED DEALERS
Toledo, OhioLike Billy Sunday, we deal in both
cash and futures, Toledo and Chicago
Born 1846 Read Our Boy SolomonJOHN WICKENHISER & CO.
Wholesale Grain Dealers
TOLEDO, OHIO
We make track bids and quote delivered prices.
Solicit consignments of Grain and Clover Seed.
Members Toledo Produce Exchange and Chicago
Board of Trade.

TOLEDO

J.F. **ZAHM** & Co.
HERE SINCE '79

New Corn

Why not Consign
All the Time?

Short Haul to Toledo

Southworth
for
ServiceH.D. RADDATZ & CO.
WHOLESALE DEALERS
WHEAT, CORN, OATS, BARLEY, RYE
Are You Receiving our Bids & Quotations
Ask to be placed on our list
TOLEDO :: OHIOTHE YOUNG GRAIN COMPANY
TOLEDO, OHIO
GRAIN AND SEEDS
Consignments :: Futures
Let Us Demonstrate Our ServiceTHE BOOK OF WRINKLES
Is Needed by Every Grain Elevator Operator
Contains 171 ingenious and well-described and illustrated
Devices for Saving Time, Labor and Money
in Elevators and Mills.
PRICE, \$1.25 POSTPAID
Mitchell Bros. Pub. Co. 431 S. Dearborn St.
CHICAGOOUR
splendid location and facilities makes it advantageous for shippers and buyers of grain to give us their patronage.
Let us handle your
WHEAT
shipments this season. Our service satisfies.
RICE GRAIN CO., Receivers and Shippers
Produce Exchange
S. L. Rice, Pres. TOLEDO, OHIO
Geo. D. Woodman, Mgr.BOARD
OF
TRADE

DETROIT

GRAIN
RECEIVERSFUMIGATION METHODS
By PROF. WILLIS G. JOHNSON
A complete practical treatise on fumigating grain elevators, flour mills, warehouses, etc. 313 pages.
Well illustrated. Price \$1.50.
MITCHELL BROS. PUBLISHING COMPANY
431 South Dearborn St., Chicago.Dumont, Roberts & Co.
GRAIN MERCHANTS
Try our Service on Consignments of your
WHEAT - CORN - OATS
31-2 Chamber of Commerce, DETROIT, MICH.H. C. Carson & Co.
Offer Unique Consignment Service on
WHEAT—CORN—OATS
RYE—BEANS
"Consignments to 'Carson' Pay Best"
1548 Penobscott Bldg., DETROIT, MICH.

BOARD
OF
TRADE

KANSAS CITY

GRAIN
RECEIVERS

GET OUR BIDS TO ARRIVE



CONSIGNMENTS

ADDISON GRAIN CO.
Grain Commission Merchants
Consignment Specialists"Quality Grain for Particular People"
Get Our PRICES Before You Buy or Sell

Kansas City . . . St. Louis

R. J. Thresher, President and General Manager
Eben S. Thresher, Secy. Chas. W. Avery, Treas.THRESHER FULLER GRAIN CO.
Grain Commission Merchants
Consignments SolicitedGrain Bought and Sold for Future Delivery
311-314 Board of Trade KANSAS CITY, MO.

WESTERN GRAIN COMPANY

Shippers (a Speciality)

NATURAL FEEDING AND MILLING CORN, BARLEY, MILL FEED and FLOUR KAFFIR CORN, MILO MAIZE BULK OR SACKED

657-660 GIBRALTAR BUILDING

KANSAS CITY, MO.

MEMBERS—Kansas City Board of Trade, St. Louis Merchants' Exchange, Grain Dealers National Association

A Card Ad

in the

"American Grain Trade"

has Excellent Display and
is Always Easy to Find.CHAMBER
OF
COMMERCE

MINNEAPOLIS

GRAIN
RECEIVERSGODFREY-BLANCHARD COMPANY
GRAIN

SUPERIOR SATISFACTORY SERVICE

MINNEAPOLIS

CARGILL ELEVATOR CO.

SHIPPERS

of all kinds of GRAIN

Operating Terminals at
Minneapolis, Minn., & Green Bay, Wis.

Write for Samples and Prices

General Offices

1100 Soo Line Building

MINNEAPOLIS - MINN.

THE SCROGGINS GRAIN CO.

SHIPPERS OF WHEAT

Minneapolis - Minn.

J. L. McCaull, President B. A. Dinsmore, Vice President
S. J. McCaull, Secretary A. M. Dinsmore, TreasurerThe McCaull-Dinsmore Co.
COMMISSION MERCHANTS

915-16-17 CHAMBER OF COMMERCE

MINNEAPOLIS, MINN.

DULUTH

MILWAUKEE

OMAHA

Cereal Grading Co.

W. T. FRASER, Vice Pres. & Mgr.

GRAIN MERCHANTS

CHOICE MILLING WHEAT & RYE

Twenty-five years' experience in selecting
and forwarding choice wheat and rye for
mills. Largest rye handlers in the West.
Also shippers of oats, barley and screenings.

Operating Elevator L

612 Chamber of Commerce

MINNEAPOLIS,

MINN.

The Cereals in America

By THOMAS F. HUNT, Professor of Agronomy, Cornell University

THE most valuable work of its kind ever published. The book
takes up the cultivation, growth and marketing of wheat, corn,
rye, barley, buckwheat and other cereals in this country, and treats
each grain from its botanical relations to the products manufac-
tured from it. An invaluable work to the grain man or miller.
Printed on highly calendared paper, profusely illustrated and bound
in cloth. 421 pages. Price \$2.50 PostpaidMITCHELL BROS. PUBLISHING COMPANY
431 South Dearborn Street CHICAGO, ILL.

MERCHANTS'
EXCHANGE

ST. LOUIS

GRAIN
RECEIVERS**Nanson Commission Co.**

(INCORPORATED)

GRAIN AND HAY

202 Chamber of Commerce

Write Us for Full
Information on
St. Louis Markets

ST. LOUIS

Consignments a
Specialty**GOFFE & CARKENER CO.**

RECEIVERS

GRAIN, HAY AND SEEDS

106-107 MERCHANTS EXCHANGE

ST. LOUIS

W. C. GOFFE G. S. CARKENER G. C. MARTIN, Jr.
K. C. Mo., Office, 101-102 Board of Trade**"THE CONSIGNMENT HOUSE
OF ST. LOUIS"****GRAIN, HAY and GRASS SEEDS****Picker & Beardsley Com. Co.**

125 MERCHANTS EXCHANGE

*When You Need a
Responsible Commission
House, Think of***Seele Bros. Grain Co.**
St. Louis**Service - Security**

**Marshall Hall
Grain Co.**
ST. LOUIS

MARTIN MULLALLY, Pres.

MULLALLY HAY AND GRAIN CO.**HAY, GRAIN AND SEEDS**

Merchants Exchange

ST. LOUIS, MO.

ALEX. C. HARSH
PRESIDENTV. C. ELMORE
VICE-PRESIDENTJOHN H. HERRON
SECRETARY AND TREASURER**ELMORE-SCHULTZ GRAIN COMPANY**
EXPERT SERVICE GIVEN CUSTOMERS513-516 MERCHANTS EXCHANGE
ST. LOUIS, MO.322 S. WASHINGTON STREET
PEORIA, ILL.

440-445 POSTAL TELEGRAPH BUILDING, CHICAGO.

We SOLICIT A PORTION OF YOUR BUSINESS FOR ANY OF THE ABOVE MARKETS, ON THE
MERITS OF THE SERVICE WE CAN RENDER YOU.LET US HAVE YOUR OPTION BUSINESS IN CHICAGO AND ST. LOUIS.
NOTIFY AND MAKE DRAFT ON US AT ST. LOUIS ON ALL SHIPMENTS.**MILLING KINKS**The latest book for grain elevator operators and millers.
A companion book to the Book of Wrinkles. Contains
169 illustrated devices assembled and classified for ready
reference.

PRICE \$1.00 POSTPAID

MITCHELL BROS. PUBLISHING
COMPANY

431 S. Dearborn St., Chicago.

Toberman, Mackey & Company

Fastest Growing Commission House in America.

Can handle your consignments in St. Louis and Kansas City.

GRAIN, HAY AND SEEDS

ST. LOUIS

KANSAS CITY

BOOKS FOR GRAIN DEALERSTHE BOOK OF ALFALFA. Illustrated, 300
pages. Price\$2.00WALLS, BINS AND GRAIN ELEVATORS, by
Milo S. Ketchum. Illustrated, 556 pages.
Price\$5.00ROPP'S CALCULATOR, new and improved edi-
tion, with complete grain tables, and other
invaluable discount and stock tables.
Price\$1.50FUMIGATION METHODS, by Willis G. John-
son. Illustrated, 312 pages. Pages.....\$1.50ELWOOD'S GRAIN TABLES, a standard every-
where in the grain trade. Price.....\$1.50THE BOOK OF CORN, prepared by specialists
under the direction of Herbert Myrick. Il-
lustrated. Price\$1.50THE CEREALS IN AMERICA, an exhaustive
treatise by Prof. Thomas F. Hunt. Illus-
trated, 421 pages. Price.....\$2.50ROBINSON'S TELEGRAPHIC CIPHER, re-
vised and enlarged. Price.....\$1.50FEEDS AND FEEDINGSTUFFS, by Prof. W.
A. Henry. Illustrated, 613 pages.
Price\$3.00UNIVERSAL GRAIN CODE, and Feed Mill
Supplement. Price\$3.00

Any of the above sent postpaid on receipt of price.

MITCHELL BROS. PUBLISHING CO. (Book Dept.) 431 S. Dearborn, Chicago, Ill.**Powell & O'Rourke****GRAIN COMPANY****Receivers—Shippers
—Exporters**

Operating

Brooklyn St. Elevator

ST. LOUIS - MISSOURI**"We Ship What We Sell"**

BOARD
OF
TRADE

CHICAGO

GRAIN
RECEIVERS

MEMBERS:

Chicago Board of Trade
St. Louis Merchants Exchange

Chicago Phones: Harrison 6999
Harrison 5049
Wabash 8055

S. MINCER

CHICAGO: Postal Tel. Bldg. ST. LOUIS, MO.

Your Consignments and Orders in Futures Solicited

Mr. Oscar C. White, in charge of Cash Grain Dept., will be pleased to furnish bids on grain to arrive at all times.

HITCH & CARDER

Members Chicago Board of Trade

CASH GRAIN OUR SPECIALTY

605 Insurance Exchange Bldg.
Tel. Wabash 6584

CHICAGO

J. C. SHAFFER & CO.

GRAIN MERCHANTS

CHICAGO

WHEREVER GRAIN OR HAY IS HANDLED,
THERE THE FIRM OF
BRIDGE & LEONARD
IS WELL AND FAVORABLY KNOWN.

COMMISSION MERCHANTS

Members
Board of Trade, National Grain Dealers Association,
National Hay Association

61 to 65 Board of Trade
CHICAGO

WEGENER BROS.

GRAIN COMMISSION

CONSIGNMENTS—SALES TO ARRIVE

305 SO. LA SALLE ST.

CHICAGO, ILL.

Philip H. Schifflin, Pres.

Eugene Schifflin, Secy-Treas.

PHILLIP H. SCHIFFLIN & CO.

Incorporated

Commission Merchants

515-518 Postal Telegraph Bldg.

Chicago, Ill.

Consignments of all kinds of Grain and Field Seeds a Specialty



CUT THIS OUT

Send this advertisement to address below and you will receive three sample copies of the Rosenbaum Review, edited and published by J. Ralph Pickell. The editor has just returned from Europe after an extended tour of investigation of financial, commercial and agricultural conditions.

There are many things to read. Some things must be read. The Review is read because several thousand like it. Try it.

Rosenbaum Review

417 Postal Telegraph Bldg.

Chicago, Ill.

Chicago Grain & Salvage Co.

SALVAGE

GRAIN DEALERS

Postal Telegraph Bldg., Chicago

Bartlett Frazier Co.

GRAIN

COMMISSION MERCHANTS

Western Union Building

Chicago

THE UPDIKE GRAIN COMPANY

"The Reliable Consignment House"

CHICAGO

OMAHA

MILWAUKEE

SIoux CITY

**BOARD
OF
TRADE****CHICAGO****GRAIN
RECEIVERS**

Established 1852

Telephone Wabash 794

T. D. RANDALL & CO.**HAY AND STRAW**

234 South La Salle Street

CHICAGO**RUMSEY & COMPANY**

FOUNDED 1867

COMMISSION MERCHANTS

BOARD OF TRADE

CHICAGO**Gerstenberg & Company**
COMMISSION MERCHANTS

Grain Seeds and Mill Feed

Barley a Specialty

305-315 So. La Salle St.

CHICAGO, ILL.**Halburd, Warren & Chandler**Stock Brokers and Commission
Merchants, Grain and ProvisionsBusiness Solicited in Any Department
Receiving, Shipping, Futures

208 S. La Salle St.

CHICAGO

E. LOWITZ

J. F. BARRETT

E. LOWITZ & CO.

Grain Commission

ROOKERY BUILDING

CHICAGO

MEMBERS: Chicago Board of Trade, Milwaukee and Minneapolis Chamber of Commerce, St. Louis Merchants Exchange, Kansas City Board of Trade, Winnipeg Grain Exchange.

W. SIMONS
President
S. E. SQUIRES
Vice-PresidentWARREN T. McCRAY
Vice-PresidentW. F. McWHINNEY
TreasurerGEO. L. STEBBINS
SecretaryRepresentatives
W. A. Werner, Edgar E. Rice
Earl M. Davis, John M. DeBolt
Chas. H. Lyons

GEO. S. DOLE, Pres.

H. N. SAGER, Sec.

J. H. DOLE & CO.

(Established 1852)

Commission Merchants, Grain and Seeds

We solicit your

CONSIGNMENTS

and orders in futures

226 La Salle Street.

CHICAGO**We Buy**
Wheat---Corn---Oats---Barley---Rye
Send Samples**The Quaker Oats Co.**

Cereal Millers

Grain Dept. 1600 Railway Exchange
CHICAGO**H. M. PAYNTER**

With ROGERS GRAIN COMPANY

Grain Commission

Correspondence Solicited

Postal Telegraph Building

CHICAGO**ARMOUR GRAIN COMPANY**

CHICAGO, ILL.

GRAIN DEALERS

Manufacturers of

ARMOUR'S STOCK & DAIRY FEEDS

AND

ARMOUR'S OATS

ARMOUR'S CORN FLAKES

ARMOUR'S PANCAKE FLOUR

NORTHERN GRAIN & WAREHOUSE CO.

Grain Merchants

538 Postal Bldg. Chicago

E. W. BAILEY & CO.**COMMISSION MERCHANTS**

GRAIN, SEEDS AND PROVISIONS

72 Board of Trade

CHICAGO

J. Herbert Ware Edward F. Leland

CONSIGNyour Grain and Seeds, and send your
orders for

GRAIN, PROVISIONS and STOCKS to

WARE & LELAND

190 W. JACKSON BOULEVARD

Royal Insurance Bldg.

CHICAGOLong Distance Phones:
Wabash 3262 Automatic 51073

W. A. LAMSON

H. H. LOBDELL

L. F. GATES

Lamson Bros. & Co.

Grain

1874 Commission 1919
Merchants

Forty-five Years of Service in the Grain Trade

HOME OFFICE
6 Board of Trade**Chicago***Vitality*The
Trade Name
for Our Line of
Feeds

The quality put in these feeds gave them an instantaneous and complete success. Samples and prices on request.

ROSENBAUM BROTHERS

77 BOARD OF TRADE

CHICAGO, ILLINOIS, U. S. A.

Mayer Holbrook & Co.**GRAIN
COMMISSION**Consignments, Sales to Arrive,
Our Specialty**SERVICE THAT SERVES—
OUR GUARANTEE**Purchases for millers, feed
manufacturers, etc.Webster Building
Hubbell Bldg.Chicago, Ill.
Des Moines, Iowa**POPE & ECKHARDT Co.****COMMISSION MERCHANTS****GRAIN AND SEEDS**

111 W. Jackson Blvd.

CHICAGO

**CORN
EXCHANGE**



BUFFALO



**GRAIN
RECEIVERS**



**"Follow The Flag"
With Your Shipments**

URMSTON GRAIN COMPANY
Buffalo, N. Y.



Buffalo Grain Company

**Receivers, Forwarders and Commission
Consignments Solicited**

Est. 1903

Barley a Specialty



Wheat-Rye-Corn-Barley-Oats

Shipped to

Eastern Grain, Mill and Elevator Corporation

Operators of Concrete Elevator, Central Elevator and Iron Elevator

5,000,000 BUSHELS CAPACITY

Will be properly cared for on arrival and show best possible results

Ship Us Your
Corn, Oats and Wheat
Regardless Of Its Condition

Send us your consignments

PRATT & CO.

OPERATORS OF
SUPERIOR ELEVATOR

910 Chamber of Commerce.

Buffalo, N. Y.

Established 1865

Whitney & Gibson
Consignments

We are organized to
render you the most
effective service in this
market.

1009-1010
Chamber of Commerce

BUFFALO, N. Y.

UNIVERSAL GRAIN CODE
And Mill Feed Supplement
Compiled for Use of
Grain and Milling Trades

OF THE

United States and Canada

Send for a Copy Now
Price \$3.00

MITCHELL BROS. PUBLISHING CO.
431 South Dearborn St., Chicago, Ill.

FOR SATISFACTORY RESULTS

CONSIGN

Your Wheat, Corn and Oats to

THE ELECTRIC GRAIN ELEVATOR CO.
Buffalo, N. Y.

L. S. CHURCHILL, President
G. W. BARTLETT, Treasurer

The Churchill Grain & Seed Co.

Commission Orders Executed

Grain and Seed Bought and Sold

Offices: Buffalo, N. Y.

Toledo, Ohio

Seed Warehouse:

Located at Toledo, Ohio

Members

New York Produce Exchange

Toledo Produce Exchange

Buffalo Corn Exchange

S. M. RATCLIFFE
Grain and Hay

ALWAYS IN THE MARKET FOR OATS
Superior facilities for handling Consignments

Chamber of Commerce

BUFFALO, N. Y.

The Real Market Place

for grain men is centered in
the advertising columns of the

"American Grain Trade"

CORN
EXCHANGE

BUFFALO

GRAIN
RECEIVERS

Consignments Only

McConnell Grain Corporation

BUFFALO

THE TOWNSEND WARD CO.

Chamber of Commerce Bldg.
BUFFALO, N. Y.

Wholesale Merchants and Grain Commission

Eliminate risk of HEATING of early shipments of NEW CORN.

Our elevator at FOSTORIA, O., is only an overnight haul from your station.

Because of our ability to handle grain rapidly, there was NEVER AN EMBARGO AGAINST FOSTORIA.

BOARD
OF
TRADE

INDIANAPOLIS

GRAIN
RECEIVERS

John W. McCardle Bert K. Black Clyde A. McCardle

McCardle-Black Company

GRAIN COMMISSION MERCHANTS

Members Chicago Board of Trade
DIRECT PRIVATE WIRE

Main Office: Indianapolis, Ind. Branch Offices: Frankfort, Ind., Crawfordsville, Ind., and Paris, Ill.

Established 1883

H. E. KINNEY GRAIN CO.

GRAIN, HAY, FEED

Consignments Have Personal Attention;
Correspondence Solicited
617 Board of Trade Indianapolis, Indiana

ESTABLISHED 1904

Fred A. Vawter Chas. M. Vawter

"We Serve You Better"

BELT ELEVATOR & FEED CO.

Commission Grain Brokerage
Sam J. Bruce, Manager Commission Dept.

Cash—Futures—Private Wire



Try our Indianapolis Service with your consignments

PHONES { Bell—Main 1867 515 Board of Trade
Automatic 28-413 Indianapolis

WM. R. EVANS GRAIN CO.

Grain Merchants

Our experience will get you the results you are after. Send us your corn and oat shipments.

Board of Trade Bldg. Indianapolis, Ind.

Robinson Telegraphic Cipher

Revised Edition

Cloth Binding \$1.50
Leather Binding 2.00

MITCHELL BROTHERS PUBLISHING CO.
431 S. Dearborn Street Chicago, Ill.

P. M. GALE GRAIN CO.

BROKERAGE

My Specialty

Let me buy for you in Indianapolis.
I satisfy others—why not you?

INDIANAPOLIS - - - INDIANA

W. D. Springer

J. A. McComas

Springer-McComas Grain Co.

Elevator Operators
and

Commission Merchants

423 Board of Trade, Indianapolis, Ind.



"Follow The Flag"

With Your Shipments

URMSTON GRAIN COMPANY

Indianapolis, Ind.

Experienced Advertisers Know

that the "American Grain Trade" is preserved for reference by elevator men, country grain shippers and grain receivers at the terminal markets long after other journals have been thrown away.

COMMERCIAL
EXCHANGE

PHILADELPHIA

RECEIVERS
AND
SHIPPERS

W. M. RICHARDSON
RICHARDSON BROS.
BROKERS
GRAIN, FLOUR and MILL FEEDS
THE BOURSE, PHILADELPHIA, PA.

Members { Grain Dealers National Ass'n.
Commercial Exchange Philadelphia, Pa.
Chamber of Commerce Philadelphia, Pa.
Illinois Grain Dealers Ass'n.
Indiana Grain Dealers Ass'n.

S. H. YOUNG & CO.
GRAIN, FLOUR, ALFALFA AND
MILL FEEDS
Consignments Solicited
417-419 "The Bourse," PHILADELPHIA

E. L. ROGERS & CO.
COMMISSION MERCHANTS
Receivers and Shippers of
HAY, STRAW, GRAIN, Etc.
Over 50 years in the business
358 Bourse Bldg., PHILADELPHIA, PA.

L. F. MILLER & SONS
Receivers and Shippers of
GRAIN, FEED, SEEDS, HAY, ETC.
OFFICE: 2931 N. BROAD ST., PHILADELPHIA, PA.
CONSIGNMENTS SOLICITED
Special attention given to the handling of
CORN and OATS

The fact that we want your Wheat, Corn,
Oats and Mill Feed does not interest you, but the
fact that it will make you money to ship to us
does. Hundreds of satisfied shippers will say that
LEMONT makes them money.
E. K. LEMONT & SON
411 Bourse Building PHILADELPHIA, PA.

ROPP'S CALCULATOR
A new and improved edition of this standard work, in-
valuable to grain dealers. Tables show at a glance the
value of wheat, corn, rye, oats, barley, seeds, etc., at all
market prices per bushel; also the weight reduced to
bushels. Trade discounts, stock tables, capacity tables,
short-cut arithmetic. Solve any problem in the twink-
ling of an eye. The grain tables alone make it indispen-
sable to all who handle grain. Price \$1.50 postpaid.
MITCHELL BROS. PUBLISHING CO.
431 S. Dearborn St., Chicago, Ill.

CONSIGN
OR
SELL US
YOUR WHEAT

E. E. DELP GRAIN CO.
EXPORTERS
453 Bourse Building Philadelphia, Pa.

SELL US
YOUR
BARLEY AND
RYE

CHAMBER
OF
COMMERCE

BALTIMORE

GRAIN
RECEIVERS

OUR PATRONS Get the Service
JOHN T. FAHEY & CO.
GRAIN RECEIVERS AND EXPORTERS
Send Us Your BALTIMORE Shipments
BALTIMORE, MD.

*HAVE YOU
TRIED*
E. STEEN & BRO.
GRAIN--HAY
Baltimore, - Md.

CHAS. ENGLAND & CO.
RECEIVERS OF
GRAIN and HAY
308-310 Chamber of Commerce
BALTIMORE, MD.

Baltimore Pearl Hominy Co.
Seaboard Corn Mills
Baltimore, Md. S. F. Evans, Mgr.
We are always in the market for White and
Yellow Corn for Milling purposes.
Correspondence and Offers Solicited

New Firm Name But Same GOOD SERVICE
WALTER F. MACNEAL & CO.
Formerly of and Successors to
J. M. FRISCH & CO.
316 Guilford Avenue, Baltimore
For 25 Years We Have Specialized **GRAIN - HAY**
Consignments Solicited

WALLS, BINS AND GRAIN ELEVATORS

By MILO S. KETCHUM

Design and construction are covered completely in this book of 556 pages. The new second edition brings it up to the minute with fresh data, new cuts, and a modern treatment throughout. Over 150 pages were added to the old edition. The new chapters on "Reinforced Concrete" and "Methods of Construction and Cost of Retaining Walls" are especially valuable. It is the standard work on stresses due to granular materials.

PRICE \$5.00 POSTPAID

MITCHELL BROS. PUBLISHING COMPANY

431 S. DEARBORN STREET
CHICAGO, ILL.

PRODUCE
EXCHANGE

NEW YORK

GRAIN
RECEIVERS**BRAINARD COMMISSION COMPANY**

RECEIVERS AND EXPORTERS

OATS AND BARLEYSend samples all off grade grains
Consignments SolicitedProduce Exchange
NEW YORK**L. W. FORBELL & CO.**

Commission Merchants

342 Produce Exchange NEW YORK

Try us with consignments of oats and corn.
We are Specialists in these grains and
are strictly Commission Merchants.GRAIN
RECEIVERS

OTHER MARKETS

GRAIN
RECEIVERSE. A. MOWREY
Pres. and Mgr.C. W. COLBY
Secretary

HUTCHINSON, KANS.

HUTCHINSON GRAIN CO.

Receivers and Shippers

GRAIN, HAY and FEED

DEALERS IN

Kansas Turkey

Hard Wheat

CINCINNATI, OHIO

Consign to or Ask for Bids

The Brouse-Skidmore Grain Co.

Receivers and Shippers

GRAIN-HAY-FEED

CINCINNATI, OHIO

Milling Wheat and Corn Our Specialty Mail Us Samples

CRAWFORDSVILLE, IND.CRABBS REYNOLDS TAYLOR CO.
Crawfordsville, Ind.

GRAIN

Clover and Timothy Seeds

Get in touch with us.

SIDNEY, OHIO**V. E. CHAMBERS**

Sidney, Ohio

The Grain and Hay ManBuyer and Shipper Car Load Lots
Your Business Appreciated**DENVER, COL.****The Denver Elevator**

Wholesale Grain and Grain Products

Colorado and Kansas Flours

DENVER, COLORADO

CEDAR RAPIDS, IOWA**Cedar Rapids Grain Co.**

RECEIVERS AND SHIPPERS

CEDAR RAPIDS - IOWA

LANCASTER, PA.**DO YOU REALIZE**That country trade always pays you
best in every way?
We work a large country business.
See the point?

JONAS F. EBY & SON, LANCASTER, PA.

MEMPHIS, TENN.**WALTER M. BROWNE**

GRAIN HAY AND MILL FEED

Consignments Solicited. MEMPHIS, TENN.

Member { Memphis Merchants Exchange
Memphis Grain and Hay Association
Grain Dealers National Association
National Hay Dealers Association**SIoux CITY, IOWA**W. M. Bell, Pres. W. A. Hottensen, Secy. and Treas.
F. H. Hunting, Vice-Pres. and Gen. Mgr.**BELL HUNTING & CO., Inc.**OFFER BEST FACILITIES
SERVICE
FOR HANDLING YOUR GRAIN

SIoux CITY

IOWA

BRATTLEBORO, VT.**E. CROSBY & COMPANY**

WHOLESALE

FLOUR and FEED

MILL AND ELEVATOR AT

Brattleboro, Vermont

Storage capacity, 500 cars sacked goods,
125,000 bu. bulk grains.**TERRE HAUTE, IND.****Paul Kuhn & Co.**

Receivers and Shippers

GRAIN

Terre Haute

Indiana

SPRINGFIELD, ILL.**John H. Lloyd & Co.**

Grain Merchants

Members—
Chicago Board of Trade
Grain Dealers Nat'l Assn.
Illinois Grain Dealers' Assn.Springfield,
Illinois**ELWOOD'S GRAIN TABLES**Show the value of any number of bushels or pounds of Wheat, Rye, Oats, Corn or Barley at any
given price from 10 cents to \$2.00 per bushel. One of the most useful books ever offered to the trade.
Endorsed by prominent grain dealers. Bound in cloth, 200 pages. Mailed on receipt of price, \$1.50.

MITCHELL BROS. PUBLISHING CO., 431 S. Dearborn St., Chicago

LEADING GRAIN RECEIVERS IN ALL MARKETS

ATLANTA, GA.

Gregg, Jos., & Son, grain & hay brokers.*†

BALTIMORE, MD.

Baltimore Pearl Hominy Co., corn buyers.*
Belt Seed Co., seeds.
England & Co., Chas., grain, hay receivers.*†
Fahey & Co., John T., receivers, exporters.*
Hax & Co., G. A., grain and hay receivers.*†
Macneal & Co., Walter F., grain, hay.*†
Scarlett & Co., Wm. G., seeds.
Steen & Bro., E., grain, hay.*†

BLOOMINGTON, ILL.

Bloomington Mills, R. C. Baldwin, Mgr., shippers.
Slick, L. E., receivers and shippers.*
Worth-Gyles Grain Co., buyers, shippers cash and future grain.*

BRATTLEBORO, VT.

Crosby & Co., E., grain, flour, feed.*

BUFFALO, N. Y.

Buffalo Grain Co., receivers, shippers.*
Churchill Grain & Seed Co., grain and seeds.*
Eastern Grain, Mill & Elevator Corporation, wheat, rye, corn, barley, oats.*†
Electric Grain Elevator Co., consignments.*†
McConnell Grain Corporation, grain.*†
Pratt & Co., corn, oats, wheat.*
Ratcliffe, S. M., grain and hay.*†
Townsend-Ward Co., receivers and shippers.*
Urmston Grain Co., grain commission.*†
Whitney-Eckstein Seed Co., wholesale seed merchants.
Whitney & Gibson, receivers and shippers.*

CEDAR RAPIDS, IOWA.

Cedar Rapids Grain Co., grain merchants.*
King-Wilder Grain Co., buyers and shippers.*

CHICAGO, ILL.

Armour Grain Co., grain buyers.*
Bache & Co., J. S., grain, seeds, consignments.
Bailey & Co., E. W., commission merchants.*
Bartlett Frazier Co., receivers and shippers.*
Bridge & Leonard, grain, hay.*†
Chicago Grain & Salvage Co., salvage grain dealers.
Dickinson Co., Albert, seeds.
Dole & Co., J. H., commission merchants.*
Freeman & Co., Henry H., hay, straw, grain.*†
Gerstenberg & Co., grain and seeds.*
Hitch & Carder, grain commission.*
Hoit & Co., Lowell, com. grain, seeds.
Hulburd, Warren & Chandler, com. merchants.*
Illinois Seed Co., seed merchants.
Lamson Bros. & Co., commission merchants.*
Lowitz & Co., E., grain commission.*
Mayer, Holbrook & Co., grain commission.*
McCartney Bros Co., grain commission.
McKenna & Rodgers, com. merchants.*
Miller & Co., Albert, hay and produce.*†
Mincer, S., consignments, futures.
Norris Grain Co., grain merchants.*
Northern Grain & Warehouse Co., grain.
Paynter, H. M., grain commission.
Pope & Eckhardt Co., grain and seeds.*
Quaker Oats Co., wheat, corn, oats, barley, rye.
Randall Co., T. D., hay and straw.
Rosenbaum Brothers, receivers, shippers.*†
Rosenbaum Grain Co., J., shippers.*
Rumsey & Co., grain commission.*
Sawers Grain Co., grain commission.*
Schiffin & Co., Philip H., com. merchants.*
Shaffer, J. C., & Co., grain merchants.*
Simons, Day & Co., grain, stocks, bonds.*
Udike Grain Co., consignments.
Wagner & Co., E. W., receivers, shippers.*
Ware & Leland, grain and seeds.*
Wegener Bros., grain commission.

CINCINNATI, OHIO.

Brouse-Skidmore Grain Co., rec. & shipper.*†

CLEVELAND, OHIO

Cleveland Grain Co., receivers and shippers.*†
Shepard, Clark C., grain merchants.*†

COLUMBUS, OHIO.

McAlister, Jas. P., & Co., shippers, grain, hay.*†

CRAWFORDSVILLE, IND.

Crabbs-Reynolds-Taylor Co., grain, seeds.*†

DECATUR, ILL.

Baldwin & Co., H. I., grain brokers.*

DENVER, COLO.

Ady & Crowe Mercantile Co., grain, hay, beans.*†
Denver Elevator, The, grain.*

DES MOINES, IOWA.

Ankeney Linseed Mfg. Co., flax.
Bartz & Co., W. H., grain merchants.*
Des Moines Elevator & Grain Co., grain merchants.
Mid-West Consumer's Grain Co., grain merchants.*
Sawers Grain Co., grain merchants.
Taylor & Patton Co., grain merchants.*

DETROIT, MICH.

Carson & Co., H. C., wheat, corn, oats, rye, beans.*
Dumont, Roberts & Co., receivers, shippers.*

DULUTH, MINN.

White Grain Co., grain and hay.*†

EVANSVILLE, IND.

Small & Co., Inc., W. H., field seeds, grain.*

HUTCHINSON, KAN.

Hutchinson Grain Co., grain, hay, feed.

INDIANAPOLIS, IND.

Belt Elevator & Feed Co., commission, grain, brokerage.*
Boyd Grain Co., Bert A., grain commission.*
Evans Grain Co., Wm. R., grain merchants.
Gale Grain Co., P. M., brokerage.*
Hayward-Rich Grain Co., commission and brokerage.*
Kendrick & Sloan Co., receivers and shippers.*†
Kinney, H. E., Grain Co., grain, hay, feed.*†
McCardle-Black Co., grain commission.
Merchants Hay & Grain Co., grain and hay.*†
Sawers Grain Co., grain commission.*
Springer-McComas Grain Co., grain commission.*
Urmston Grain Co., grain commission.*†
Witt, Frank A., grain commission and brokerage.

KANSAS CITY, MO.

Addison Grain Co., grain commission merchants.
Moore-Lawless Grain Co., grain receivers.*
Moore-Seaver Grain Co., corn and oats.*
Peppard Seed Co., J. G., alfalfa seed, millet.
Rudy-Patrick Seed Co., seeds.
Thresher Fuller Grain Co., commission.*
Western Grain Co., shippers grain and feed.*

LA CROSSE, WIS.

Salzer Seed Co., John A., seeds.

LANCASTER, PA.

Eby & Sons, Jonas F., receivers and shippers.*†

LIMA, OHIO.

Hurley Buchholtz Co., wholesale grain, hay, straw.*†

LOUISVILLE, KY.

Edinger & Co.,† grain, hay, feed.
Farmer & Sons, Oscar, grain, hay, feed.*†
Williams & Monroe, grain, stocks, cotton.

MEMPHIS, TENN.

Browne, Walter M., grain, hay, mill feed.*
U. S. Feed Co., receivers and shippers.*†

MIDDLEPOINT, OHIO

Pollard Grain Co., wholesale grain, hay.*

MILWAUKEE, WIS.

Bacon Co., E. P., grain commission.*
Courteen Seed Co., seeds.
Donahue-Stratton Co., buyers and shippers.*
Flanley Grain Co., grain.
Franke Grain Co., receivers and shippers.*
Kamm Co., P. C., grain merchants.*
Kellogg Seed Co., seeds.
Mohr-Holstein Commission Co., grain com.*
Taylor & Bournique Co., corn, oats, barley.*

MINNEAPOLIS, MINN.

Cargill Elevator Co., grain shippers.*
Cereal Grading Co., grain merchants.*
Godfrey-Blanchard Co., grain commission.*
McCaull-Dinsmore Co., com. merchants.*
Quinn, Shepherdson Co., grain merchants.*
Scroggins Grain Co., The, wheat shippers.*

NEW CASTLE, PA.

Hamilton Co., grain, feed, flour, hay, potatoes.

NEW YORK, N. Y.

Brainard Commission Co., oats, barley.*
Forbell & Co., L. W., com. merchants.*
Power & Co., W. D., hay, straw, produce.*†

PEORIA, ILL.

Buckley & Co., grain, hay, seeds.*
Bowman & Co., Geo. L., grain commission.
Cole Grain Co., Geo. W., grain receivers.*
Conover Grain Co., E. B., receivers, shippers.
Dewey & Sons, W. W., grain commission.*
Feltman Grain Co., C. H., grain commission.*
Luke Grain Co., grain commission.*
McCreery & Sons, J. A., com. merchants.*
Miles, P. B. & C. C., grain commission.*†
Mueller Grain Co., receivers and shippers.*
Rumsey, Moore & Co., grain commission.*
Slick, L. E., receivers and shippers, cash grain.
Smith-Hamilton Grain Co., grain.*
Warren Commission Co., consignments.*

PHILADELPHIA, PA.

Delp Grain Co., E. E., grain commission.*
Lemont & Son, E. K., wheat, corn, oats, feed.*†
Miller & Sons, L. F., receivers and shippers.*†
Richardson Bros., grain, flour, mill feeds.*
Rogers & Co., E. L., receivers and shippers.*†
Young & Co., S. H., grain, flour and feeds.

PITTSBURGH, PA.

Foster Co., C. A., wholesale grain, hay.*†
Harper Grain Co., grain commission.
Heck & Co., W. F., grain, hay, mill feeds.*†
Herb Bros. & Martin, grain and hay.*†
McCague, R. S., grain and hay.*†
Rogers & Co., Geo. E., receivers & shippers.*†
Walton Co., Samuel, hay, grain, mill feed.*†

RICHMOND, VA.

Beveridge & Co., S. T., grain, hay, feed.*†
Southern Brokerage Co., hay, grain, feed.*

ST. LOUIS, MO.

Elmore-Schultz Grain Co., receivers, shippers.*†
Goffe & Carkener Co., grain, hay, seeds.*†
Graham & Martin Grain Co., rec. exclusively.*†
Langenberg Bros. Grain Co., grain com.*†
Marshall Hall Grain Co., receivers, shippers and exporters.*
Mullally Hay & Grain Co.*†
Nanson Commission Co., receivers, shippers.*†
Picker & Beardsley Com. Co., grain, hay.*†
Powell & O'Rourke Grain Co., receivers, shippers, exporters.*
Prunty, Chas. E., grain and seeds.
Schisler Seed Co., A. W., field and garden seeds.
Seale Bros. Grain Co., commission.*
Toberman, Mackey & Co., grain, hay, seeds.*†
Turner Grain Co., grain commission.*

SIDNEY, OHIO.

Chambers, V. E., wholesale grain and hay.*†
Custenborder & Co., E. T., buyers and shippers of grain in car lots.*
Wells Co., J. E., wholesale grain, seed.*

SIOUX CITY, IOWA.

Bell, Huntting & Co., grain.

SPRINGFIELD, ILL.

Lloyd & Co., John H., grain merchants.*

TERRE HAUTE, IND.

Kuhn & Co., Paul, receivers and shippers.

TIFFIN, OHIO.

Sneath-Cunningham Co., grain and seeds.

TOLEDO, OHIO.

De Vore & Co., H. W., grain, seeds.*
King & Co., C. A., grain and seeds.*†
Raddatz & Co., H. D., grain, seeds.*
Rice Grain Co., receivers and shippers.*
Southworth & Co., grain and seeds.*†
Wickenhiser & Co., John, grain dealers.*
Young Grain Co., grain, seeds.*
Zahn & Co., J. F., grain and seeds.*†

TOPEKA, KAN.

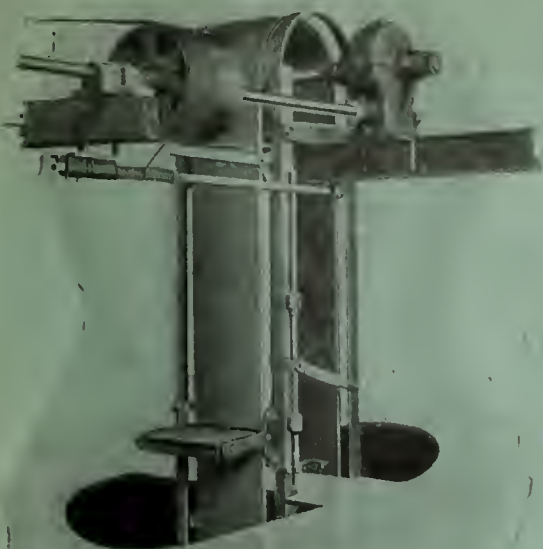
Derby Grain Co., wheat, oats, corn.*
Golden Belt Grain & Elevator Co., grain.*

WINCHESTER, IND.

Goodrich Bros., wholesale grain, seeds, hay.*†

*Members Grain Dealers' National Association.

†Members National Hay Association.



EMPLOYES ELEVATOR

with Automatic Safety Stop

Put Your Mill, Elevator or Factory
on One Floor

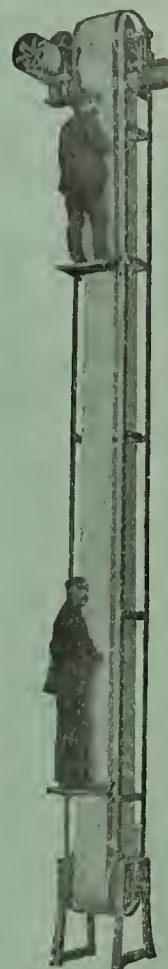
THE Wolf Employes Elevator practically puts the whole establishment on one floor. No need to waste human energy in traveling up and down long flights of stairs. Your men tire themselves out more by tramping up and down than they do by three times the time devoted to their bench or machine.

¶ Your miller will conserve his energy and look more closely after each machine if he can travel on the elevator. Many trips to the sifter floor, the grain cleaning machinery and the purifiers are avoided now because your miller is compelled to tramp up and down stairs day after day and month after month. This energy should be made productive by having your miller give closer attention to all the details—get better quality, A HIGHER YIELD and take BETTER CARE of the entire equipment.

Sectional with Silent
Platform

WOLF Employes Elevators have endless belt with noiseless platform framed in steel. Made up in sections with well braced steel and riveted iron. Steel mandrels at top are supported by large ring oiling bearings mounted on strong I-Beam. The cast iron standards at the base contain the adjustable bearings for tightening the belt.

¶ Pivoted Roller Platform—Platforms on the Wolf Employes Elevator are securely fastened at convenient intervals and mounted on steel pivoted platform arms. Each platform runs on eight rollers—four within the channel iron frame and four without. Impossible to sag or stretch the belt. Always ready to mount. No flopping or changing of platform as it changes direction in passing over end pulleys; a decided advantage over every other make of platform.



DRIVEN by motor, tight and loose pulleys, and gears. ¶ The Wolf Automatic Safety Stop is unique indeed. Simple, compact, positive, flexible and has adjustable trigger tension. Absolutely reliable and always trips when weight passes the danger zone. Impossible to go over the top on a Wolf Employes Elevator with Safety Stop attached. ¶ May be attached to any employes elevator where the platform travels on rollers against up-rights supporting the elevator.

Send for Bulletin No. 106

THE WOLF COMPANY, Chambersburg, Pa.

ANNOUNCING A NEW BOOK FOR MILLS AND ELEVATORS



ANY operators of elevators and flour mills have derived help from the ingenious devices published in the "Book of Wrinkles." The great demand for this book, which is now in its Fifth Edition, has impelled the publishers to issue a new volume in the series:

Milling Kinks

which is just off the press and ready for delivery. Since it is probable that the first edition will be rapidly exhausted, those desiring a copy are urged to send in their orders immediately.



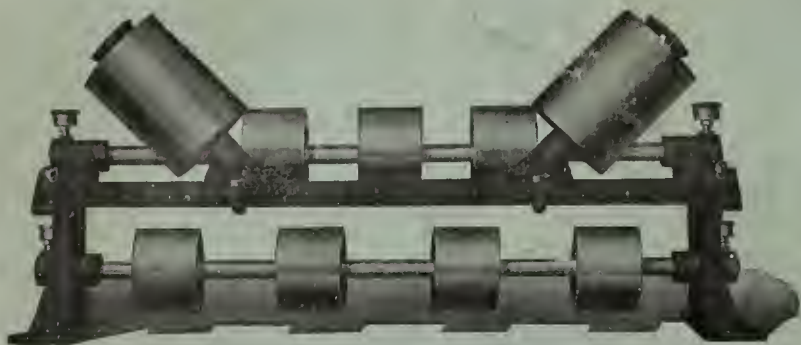
THE new book, "Milling Kinks," is uniform in size and style with the "Book of Wrinkles" and contains 169 illustrated devices, many of which are of as much value to Elevator Operators as to Millers and Millwrights. Chapters are included on: Bins, Hoppers and Sinks; Valves and Spouting; Elevators and Conveyors; Receiving, Separating and Cleaning; Roll Auxiliaries; Sifters and Bolters; Belting and Transmission; Blending and Tempering; Filling and Packing; Sampling and Testing; Dust Collection; Lubrication; Heating, Ventilating and Fumigating; Special Tools and Devices; Miscellaneous.

PRICE \$1.00 POSTPAID

MITCHELL BROS. PUBLISHING COMPANY
431 South Dearborn St., Chicago, Ill.



Belt Conveyors of All Kinds



If you are considering the construction of a new elevator or mill or the remodeling of the same, THE WELLER machinery will be found to meet any requirement of your particular case.

Just as the name WELLER signifies superior quality in all types of conveying machinery so will the same standard hold in BELT CONVEYORS.

MANUFACTURERS OF

**Elevating Conveying and Power
Transmission Machinery**

WELLER MANUFACTURING CO.
CHICAGO, ILL.

BOSTON, MASS.
NEW YORK CITY, N. Y.

PHILADELPHIA, PA.
PITTSBURGH, PA.

BALTIMORE, MD.
SALT LAKE CITY, UTAH

WEBSTER

**Grain Elevator
Machinery**

FOR over forty years Webster Conveying, Elevating, Loading and Transmission Machinery has stood the test of service. It is good machinery, built to a quality standard.



We design and build EVERYTHING that goes into the modern elevator. Our engineers will be glad to go over specific requirements, either on new structures, repairs or extensions, and make recommendations.

Catalog upon request

The Webster M'f'g. Company
TIFFIN, OHIO

Offices in Chicago, New York and Boston

The "Knickerbocker Cyclone" Dust Collector



For Grain Cleaners

ALL STEEL



Write for Catalog

The Knickerbocker Company

Jackson, Mich.

"UNCLE SAM" has now allowed us to purchase steel and resume the manufacture of the

CLIMAX SCOOP TRUCK

which will be glad news for many waiting customers. The Scoop-Truck enables one man to remove more coal or grain from a box car than three men can move in the ordinary way. Ask any of the 5,000 users who have tried it.

Price

Standard -	-	-	\$15.00
Extra Heavy -	-	-	17.00

F. O. B. Factory

**DETROIT
SCOOP-TRUCK
COMPANY**

2227 W. Jefferson Ave DETROIT, MICH.



ARE YOU WORRIED

about the condition of that grain in your bins?
Let us equip your storage with a

Zeleny Thermometer System

to tell you the exact condition of
the grain and cut out the worry

Over 100 Elevators Equipped
Write for Description

WESTERN FIRE APPLIANCE WORKS
542 South Dearborn Street Chicago



The Supreme Courts have ruled against you, so why put off having a dust collecting system installed to prevent a dust explosion? It doubles the lease of life of your employes and gives you a clean elevator even though you never meet with a loss. We make dust collectors, but collectors alone will not protect you.

Write

THE DAY COMPANY,
Minneapolis, Minn.

Pioneers in the work.